Georgia Power Company
Plant Yates – Gypsum Stack Landfill

Newnan, Georgia
PERMIT #: 038-014D(I)
Coweta County

SUPPLEMENTAL 2019 FIRST SEMIANNUAL GROUNDWATER MONITORING REPORT

Atlantic Coast Consulting, Inc.

PROFESSIONAL CERTIFICATION

This *Supplemental 2019 First Semiannual Groundwater Monitoring & Corrective Action Report*, Georgia Power Company – Plant Yates Gypsum Stack Landfill has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 and 391-3-4-.14 by a qualified groundwater scientist or engineer with Atlantic Coast Consulting, Inc (ACC).

ACC certifies that all site constituents were below the applicable Georgia maximum contaminant levels (MCL).

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TABLE OF CONTENTS

1.0 INTRODUCTION

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

The Site ceased accepting CCR prior to October 19, 2015 and is therefore not subject to Federal monitoring requirements. The Site was closed following the removal of all gypsum and liner material, and a closure certification report was submitted to GA EPD in January 2017. To comply with GA EPD's 391-3-4-.10, a permit application package for Plant Yates Gypsum Stack Landfill was submitted to GA EPD in November 2018 and is currently under review. The list of analytes included in the groundwater monitoring program has been modified to meet the requirements of 40 CFR § 257 (i.e. incorporation of Appendix III and IV constituents into the routine monitoring program). This report includes the background data and the initial detection monitoring data for the Site.

1.1 Site Description and Background

Plant Yates is located at 708 Dyer Road, on the east bank of the Chattahoochee River in Coweta County, Georgia near the Coweta and Carroll County line, approximately 8 miles northwest of the city of Newnan and 13 miles southeast of the city of Carrollton. Plant Yates occupies approximately 2,400 acres. Figure 1, Site Location Map, depicts the site location relative to the surrounding area.

1.2 Regional Geology and Hydrogeologic Setting

Plant Yates is located in the Inner Piedmont Physiographic Province of western Georgia, immediately southeast of the regional zone of deformation referred to as the Brevard Zone. Rock units at Plant Yates are primarily interlayered gneiss and schists. The rocks in the area have been subjected to several episodes of metamorphism and intrusion by igneous bodies. Extensive jointing occurs in the area. Surface expressions of the joints are observed on topographic maps and aerial photos of the Plant Yates area.

A thin layer of soil from one to two feet thick overlies a thick layer of saprolite. The saprolite, which extends to typical depths of 20-40 feet below ground surface, was formed in-place by the physical and chemical weathering of the underlying metamorphic rocks. There is typically a zone of variable thickness (approximately 5-20 feet) of transitionally weathered rock between the saprolite and competent bedrock. Localized alluvial soils consisting of generally coarser material (silty-sand, clayey silt, and silty clay with well-rounded gravel and cobbles) than that observed in saprolite may be related to historical river channel migration.

At Plant Yates, groundwater is typically encountered slightly above the saprolite/weathered rock interface. Groundwater flow in the saprolite zone is through interconnected pores and relict textures and fractures. As the rock becomes increasing competent with depth groundwater flow occurs mainly through joints and fractures (i.e. secondary porosity). Recharge to the water-bearing zones in fractured bedrock takes place by seepage through the overlying mantle of

soil/saprolite, or by direct entrance through openings in outcrops. The average depth of the water table at Plant Yates varies with topography, ranging from approximately 5 to 50 feet below ground surface. The water table occurs in the saprolite and in the transitionally weathered zone, at least several feet above the top of rock.

In-situ slug tests were performed in saprolite and weathered bedrock at multiple locations on the site. The average hydraulic conductivity for the unit is 2.3 x 10^{-4} centimeters per second, based on multiple rising-head and falling-head slug tests (SCS, 1992). The testing indicates a fairly uniform medium across the saprolite and weathered rock horizon. The values from the field testing fall within the standard range of hydraulic conductivity values associated with a silty sand.

1.3 Groundwater Monitoring Well Network and CCR Unit Description

A groundwater monitoring system was installed within the uppermost aquifer at the Site. The monitoring system is designed to monitor groundwater passing the unit boundary within the uppermost aquifer. Figure 2, Well Location Map, shows the monitoring well locations. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction (Table 1, Monitoring Network Well Summary).

2.0 GROUNDWATER MONITORING ACTIVITIES

The following describes monitoring-related activities performed in the first half of 2019 and discusses any status changes of the monitoring program. Samples were collected from each well in the certified monitoring system shown on Figure 2. Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed at the Site.

2.1 Monitoring Well Installation/Maintenance

A groundwater monitoring system was installed within the uppermost aquifer to monitor groundwater passing the waste boundary of the former Gypsum Landfill. Wells are located to serve as upgradient and downgradient wells based on characterization of site-specific hydrogeologic conditions as determined by a qualified groundwater scientist.

A network of seven monitoring wells were installed for groundwater monitoring at the Site. Table 1, Monitoring Well Network Summary presents the pertinent construction details for the monitoring wells.

2.2 Detection Monitoring Program

A routine semiannual sampling event was conducted in February 2019 and the data were reported to Georgia EPD in June 2019. To realign future sampling schedules, an additional sampling event was conducted in June 2019. This report provides data for the June 2019 monitoring event and reports it as the Supplemental 2019 First Groundwater Monitoring Report. Based on this revised schedule, a third sampling event for 2019 will be performed in September and the data will be reported in the 2019 second semiannual groundwater monitoring report.

2.2.1 Background Monitoring for CCR Analytes

A minimum of eight (8) independent samples were collected from the network and analyzed for the constituents listed in Appendix III and IV. A ninth event was completed in February 2019. A

table summarizing the results is included in Table 5A, Summary of Background Groundwater Analytical Data – 2016 - 2018. Data reports for each sampling event are included in Appendix A, Laboratory Analytical and Field Sampling Reports.

2.2.2 Initial Detection Monitoring for CCR Analytes

Following completion of the nine independent sampling events for constituents listed in Appendix III or IV, groundwater samples were collected June 12-13, 2019 and analyzed for Appendix III constituents as part of the supplemental first semiannual detection monitoring event. A table summarizing the results is included in Table 5B, Summary of Groundwater Analytical Data – June 2019. Data reports for the June 2019 sampling event are included in Appendix A.

2.2.3 Monitoring for Existing Approved Analytes

Groundwater samples collected on June 12-13, 2019 were also analyzed for the existing EPD specified parameters. A table summarizing the results for the well is included in Table 5B, Summary of Groundwater Analytical Data – June 2019. Data reports for the June 2019 sampling event are included in Appendix A.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

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

3.1 Groundwater Flow Direction, Gradient, and Velocity

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

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

Specifically:

Equation

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

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 0.20 (based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979). An alternate effective porosity value of 0.48 (SCS, 1992) is also used to define the range of groundwater flow velocities. Groundwater flow velocities have been calculated and are tabulated on Table 4, Groundwater Flow Velocity Calculations. The calculated flow velocity is 0.043 to 0.104 feet per day or 16 to 38 feet per year for the most recent sampling event.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures. For sampling completed with non-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). Peristaltic pump samples are collected using new disposable polyethylene tubing. All non-disposable equipment was decontaminated before use and between well locations.

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

- ± 0.1 standard units for pH
- ± 10% for specific conductance
- ± 10% for DO where DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 10 nephelometric turbidity units (NTU)

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

3.3 Laboratory Analyses

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

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

3.4 Quality Assurance and Quality Control

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

Groundwater quality data in this report was validated in accordance with US EPA guidance (US EPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestions

spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using US EPA procedures as guidance (US EPA, 2017).

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

4.0 STATISTICAL ANALYSIS

Statistical analysis of groundwater monitoring data was performed following the appropriate certified statistical methodology.

4.1 Statistical Methods

The statistical method used at the site was developed by Groundwater Stats Consulting, LLC (GSC), using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, US EPA 530/ R-09-007 (US EPA, 2009). To develop the statistical method, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III parameter. All screened historical background data through August 2018 were used to construct statistical limits for the EPD permit-required metals. Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations.

4.1.1 Appendix III Constituents

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits combined with a 1-of-2 verification resample plan for Appendix III parameters boron, calcium, chloride, sulfate, and total dissolved solids (TDS). Monitoring results for fluoride and pH were evaluated using intrawell prediction limits combined with a 1-of-2 verification resample plan. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each parameter. Intrawell prediction limits are constructed from historical data within a given well, and the most recent sample is compared to background. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified. A summary of the statistical methodology used at the Site for routine groundwater monitoring is provided in Table 6, Summary of Statistical Methods.

4.1.2 EPD Permit-Required Metals

Statistical tests used to evaluate the groundwater monitoring data consist of intrawell prediction limits combined with a 1-of-2 verification resample plan for all required metals, except for barium at GWC-6R. The occurrence of barium at GWC-6R is evaluated by a trend test. Intrawell prediction limits are constructed from historical data within a given well, and the most recent sample is compared to background. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified. Table 6 includes a summary of the metals included in the EPD permit and the statistical method.

4.2 Statistical Analyses Results

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

Resampling to confirm SSIs was not performed; therefore, initial SSIs are treated as verified. The statistical analysis and comparison to prediction limits are included as Appendix B, Statistical Analyses.

4.2.1 First Semiannual Detection Monitoring Event

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

- Boron: GWC-1R, GWC-4R
- Calcium: GWC-1R, GWC-2R, GWC-4R, GWC-5R, GWC-6R
- Chloride: GWC-1R, GWC-2R, GWC-3R, GWC-4R, GWC-5R, GWC-6R
- Fluoride: GWC-2R, GWC-3R
- pH: GWC-1R
- Sulfate: GWC-1R, GWC-2R, GWC-5R, GWC-6R
- TDS: GWC-1R, GWC-2R, GWC-4R, GWC-5R, GWC-6R

Within 90 days from determining an SSI, GPC will either (1) prepare a demonstration that a source other than the Site was the cause, or (2) implement assessment monitoring per §257.95.

4.4.2 Appendix IV Background Data

Appendix IV groundwater data from downgradient wells will be compared to groundwater protection standards if assessment monitoring is implemented. Plant Yates Gypsum Landfill is currently performing detection monitoring and has not implemented assessment monitoring. Therefore, statistical analysis of the Appendix IV data has not been performed.

4.3 Statistical Analyses Results for Parameters Required by Existing Permit

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

Concentrations of target metals were within their respective intrawell prediction limits during the June 2019 sampling event. The cobalt concentration in the sample from GWC-3R equaled the reporting limit of 0.01 mg/L, but did not exceed the prediction limit of 0.01 mg/L. Additionally, a GA EPD-approved Alternate Source Demonstration identified cobalt as naturally occurring at the facility (SCS, 2016).

5.0 MONITORING PROGRAM STATUS

Plant Yates – Gypsum Stack is in detection monitoring. SSIs of Appendix III parameters have been identified. Plant Yates has 90 days from the date of determination to either (1) prepare a

demonstration that a source other than the Site was the cause, or (2) implement assessment monitoring per.

6.0 CONCLUSIONS AND FUTURE ACTIONS

Statistical evaluations of the groundwater monitoring data for Gypsum Stack identified SSIs of Appendix III groundwater monitoring parameters. GPC will prepare an alternate source demonstration or initiate assessment monitoring program within 90 days.

The next monitoring event is planned for the second half of 2019.

7.0 REFERENCES

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

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TABLES

Table 1
Monitoring Network Well Summary

Well	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft BTOC)	Top of Screen Elevation (ft MSL)	Purpose
GWA-2	2007	52.13	753.18	42.10	763.21	Upgradient
GWC-1R	5/12/2011	36.34	736.94	26.35	746.93	Downgradient
GWC-2R	10/19/2010	43.80	725.61	33.80	735.61	Downgradient
GWC-3R	5/11/2011	38.34	736.94	28.34	746.94	Downgradient
GWC-4R	10/20/2010	31.05	725.97	21.08	735.94	Downgradient
GWC-5R	5/11/2011	42.82	739.72	32.81	749.73	Downgradient
GWC-6R	8/11/2009	51.87	736.73	41.88	746.72	Downgradient

Notes:
1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. Northings and Eastings are GA State Plane West (NAD83).

Table 2
Groundwater Sampling Event Summary

Well	Hydraulic Location	Aug. 31 - Sept. 1, 2016	Nov. 28 - Dec. 1, 2016	Feb. 22-24, 2017	May 8-10, 2017	Jul. 17-18, 2017	Oct. 16-18, 2017	Feb. 19-21, 2018	Aug. 6-8, 2018	Feb. 25-26, 2019	Jun. 12-13, 2019
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Background	Detection
GWA-2	Upgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	BG-09	D-01
GWC-1R	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	BG-09	D-01
GWC-2R	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	BG-09	D-01
GWC-3R	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	BG-09	D-01
GWC-4R	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	BG-09	D-01
GWC-5R	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	BG-09	D-01
GWC-6R	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	BG-09	D-01

Notes:
1. Events shown represent CCR monitoring only. Ongoing monitoring for previously permitted analytes has occurred semi-annually.
2. BG-XX = Background Event (Appendix III and Appendix IV).
3. D-XX = Detection Event (Appendix III).

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Table 3
Summary of Groundwater Elevations

Well	Hydraulic Location	Aug. 31 - Sept. 1, 2016	Nov. 28 - Dec. 1, 2016	Feb. 22-24, 2017	May 8-10, 2017	Jul. 17-18, 2017	Oct. 16-18, 2017	Feb. 19-21, 2018	Aug. 6-8, 2018	Feb. 25-26, 2019	Jun. 12-13, 2019
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Detection	Detection
GWA-2	Upgradient	766.85	766.03	765.04	764.46	764.27	764.79	764.63	766.16	767.44	769.23
GWC-1R	Downgradient	747.50	745.13	745.48	747.13	747.42	747.71	748.00	749.54	752.10	752.06
GWC-2R	Downgradient	739.76	738.12	738.37	738.75	739.01	739.63	739.38	740.22	741.93	742.03
GWC-3R	Downgradient	744.95	742.96	742.64	743.48	743.84	745.33	744.61	745.93	747.31	748.05
GWC-4R	Downgradient	738.91	737.60	738.50	738.50	739.21	739.09	739.64	740.27	741.97	741.99
GWC-5R	Downgradient	749.89	747.47	747.26	748.04	748.90	751.64	751.14	752.99	754.97	755.11
GWC-6R	Downgradient	751.07	749.43	748.67	748.90	748.87	749.32	749.08	750.97	753.07	754.50

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

Table 4
Groundwater Flow Velocity Calculations
June 2019

Equation

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

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

Values Used in Calculation

Value			Source
K =	2.3E-04 0.66	cm/sec ft/day	See note 1.
i =	0.031	unitless	Hydraulic gradient from GWA-2 to GWC-4R
P_e =	0.48	unitless	See note 1.
P_e =	0.20	unitless	See note 2.

Site-Specific Calculation Using Porosity Value of 0.48

$$v = \frac{(0.66)\,(0.031)}{0.48}$$

$$v = 0.043 \text{ ft/day}$$

Literature Calculation Using Porosity Value of 0.20

$$v = \frac{(0.66)\,(0.031)}{0.20}$$

$$v = 0.104 \text{ ft/day}$$

Notes

(1) The Geology & Hydrogeology of the Plant Yates CT-121 Project Gypsum Stacking Area (SCS, 1992)

(2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 5A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance		MCL/ (SMCL)	Well ID							
			GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2
			8/31/2016	11/28/2016	2/22/2017	5/8/2017	7/17/2017	10/16/2017	2/19/2018	8/6/2018
APPENDIX III	Boron	N/R	ND (0.0315 J)	ND (0.0095 J)	ND	ND (0.0084 J)	ND (0.0092 J)	ND	ND	ND
	Calcium	N/R	9.31	9.47	10.4	14.2	14.1	13.6	ND	ND (11.4 J)
	Chloride	(250)	4.0	4.2	3.7	4.2	3.8	4.2	4.3	3.8
	Fluoride	4	ND (0.14 J)	ND (0.12 J)	ND (0.09 J)	ND (0.05 J)	ND (0.14 J)	ND (0.12 J)	0.17	ND (0.087 J)
	Sulfate	(250)	29	36	43	60	63	62	64.6	42.1
	TDS	(500)	209	102	164	145	185	218	173	158
APPENDIX IV	Antimony	0.006	ND	ND (0.0014 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0542	0.0529	0.0607	0.0650	0.0600	0.0542	0.0533	0.044
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND (0.0053 J)	ND (0.0036 J)	ND (0.0049 J)	ND (0.0059 J)	ND (0.0046 J)	ND (0.0034 J)	ND	ND (0.0030 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND (0.0014 J)	ND	ND (0.0016 J)	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.20	0.264 U	1.06 U	0.187 U	1.42	1.17	1.58	0.196 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND (0.00006 J)	ND (0.00006 J)	ND (0.00007 J)	ND	ND

Notes:

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

Table 5A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance		MCL/ (SMCL)	Well ID							
			GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R	GWC-1R
			8/31/2016	11/29/2016	2/23/2017	5/9/2017	7/18/2017	10/17/2017	2/21/2018	8/7/2018
APPENDIX III	Boron	N/R	ND (0.0553 J)	ND (0.0149 J)	ND (0.0082 J)	ND (0.0097 J)	ND (0.0123 J)	0.0513	ND (0.0378 J)	0.043
	Calcium	N/R	69.4	70.6	62.4	47.4	33.2	38.7	34.3	26.2
	Chloride	(250)	7.6	5.8	6.2	16	18	31	27	35.4
	Fluoride	4	ND (0.05 J)	ND (0.04 J)	ND (0.06 J)	ND (0.06 J)	ND	ND	ND	ND
	Sulfate	(250)	410	450	390	280	200	180	146	100
	TDS	(500)	616	594	581	410	322	381	285	242
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.0005 J)	ND	ND (0.0009 J)	ND	ND
	Barium	2	0.0711	0.0754	0.0646	0.0463	0.0390	0.0349	0.0322	0.025
	Beryllium	0.004	ND (0.0001 J)	ND	ND	ND (0.00008 J)	ND	ND (0.0001 J)	ND	ND (0.000074 J)
	Cadmium	0.005	ND	ND (0.00008 J)	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0012 J)	ND (0.0009 J)	ND (0.001 J)	ND (0.0011 J)	ND (0.0008 J)	ND (0.001 J)	ND	ND
	Cobalt	N/R	ND (0.0006 J)	ND	ND (0.0009 J)	ND (0.0008 J)	ND (0.0032 J)	ND (0.0007 J)	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0024 J)	ND	ND	ND (0.0020 J)	ND	ND (0.0016 J)	ND (0.0014 J)	ND (0.0010 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.08	0.551 U	0.504 U	0.434 U	1.37	0.937 U	0.817 U	0.578 U
	Selenium	0.05	ND (0.0039 J)	ND (0.0033 J)	ND (0.0097 J)	ND (0.0066 J)	ND (0.0021 J)	ND (0.003 J)	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

Table 5A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance		MCL/ (SMCL)	Well ID							
			GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R	GWC-2R
			8/31/2016	11/28/2016	2/22/2017	5/10/2017	7/18/2017	10/17/2017	2/20/2018	8/8/2018
APPENDIX III	Boron	N/R	ND (0.0305 J)	ND (0.0206 J)	ND (0.0192 J)	ND (0.0179 J)	ND (0.0169 J)	ND (0.0168 J)	ND	ND (0.017 J)
	Calcium	N/R	19.9	17.7	16.2	11.8	8.69	9.77	ND	ND (13.4 J)
	Chloride	(250)	6.3	6.7	5.7	7.1	6.0	6.1	5.8	4.7
	Fluoride	4	ND (0.08 J)	ND (0.03 J)	ND (0.04 J)	ND (0.05 J)	ND	ND	ND	ND
	Sulfate	(250)	140	120	100	80	57	59	55.9	81.1
	TDS	(500)	257	177	240	149	122	214	131	166
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0601	0.0562	0.0481	0.0563	0.0490	0.0470	0.0467	0.049
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND (0.000070 J)
	Cadmium	0.005	ND (0.0001 J)	ND (0.0001 J)	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND (0.0008 J)	ND	ND	ND	ND
	Cobalt	N/R	0.0239	0.0189	0.0184	0.0213	0.0261	0.0182	ND	0.014
	Lead	0.015	ND	ND	ND	ND (0.0001 J)	ND (0.00007 J)	ND	ND	ND
	Lithium	N/R	ND	ND	ND (0.0036 J)	ND (0.0035 J)	ND (0.0035 J)	ND (0.0035 J)	ND	ND (0.0031 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.250 U	0.387 U	0.739 U	0.458 U	0.708 U	0.402 U	1.64	2.01
	Selenium	0.05	ND (0.0029 J)	ND (0.0019 J)	ND (0.0015 J)	ND (0.0016 J)	ND (0.0024 J)	ND (0.0028 J)	ND	ND (0.0025 J)
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

Table 5A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance		MCL/ (SMCL)	Well ID							
			GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R	GWC-3R
			8/31/2016	11/30/2016	2/23/2017	5/9/2017	7/18/2017	10/18/2017	2/21/2018	8/7/2018
APPENDIX III	Boron	N/R	ND (0.0315 J)	ND (0.0089 J)	ND	ND (0.0077 J)	ND (0.0073 J)	ND	ND (0.0399 J)	ND (0.0049 J)
	Calcium	N/R	7.23	6.43	4.25	3.56	4.16	5.67	4.76	4.7
	Chloride	(250)	6.7	7.8	6.5	7.2	7.7	6.5	6.7	6.3
	Fluoride	4	ND (0.07 J)	ND (0.03 J)	ND (0.04 J)	ND	ND	ND (0.22 J)	ND	ND
	Sulfate	(250)	87	76	47	41	44	53	46.7	38.8
	TDS	(500)	216	177	105	77	89	166	105	99
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0286	0.0258	0.0278	0.0308	0.0407	0.0490	0.0285	0.029
	Beryllium	0.004	ND (0.0003 J)	ND (0.0004 J)	ND (0.0003 J)	ND (0.0002 J)	ND (0.0002 J)	ND (0.0004 J)	ND	ND (0.00026 J)
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0013 J)	ND (0.0010 J)	ND (0.0012 J)	ND (0.0016 J)	ND (0.0009 J)	ND (0.0010 J)	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND (0.0001 J)	ND	ND	ND	ND	ND (0.00008 J)	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.461 U	0.0236 U	0.728 U	0.0367 U	0.237 U	0.706 U	0.526 U	0.376 U
	Selenium	0.05	ND (0.0038 J)	ND (0.0054 J)	ND (0.0020 J)	ND	ND (0.0027 J)	ND (0.0047 J)	ND	ND (0.0016 J)
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

Table 5A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance		MCL/ (SMCL)	Well ID							
			GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R	GWC-4R
			9/1/2016	11/30/2016	2/24/2017	5/10/2017	7/18/2017	10/17/2017	2/20/2018	8/8/2018
APPENDIX III	Boron	N/R	3.25	0.813	2.53	1.22	0.970	0.804	1.010	1.3
	Calcium	N/R	37.1	13.4	29.5	17.0	16.8	14.3	ND	ND (22.1 J)
	Chloride	(250)	190	48	130	71	46	50	53.1	69.3
	Fluoride	4	ND (0.15 J)	ND (0.11 J)	ND (0.08 J)	ND (0.04 J)	ND	ND	ND	ND
	Sulfate	(250)	150	50	110	70	50	58	64.6	79.5
	TDS	(500)	553	247	414	251	179	256	233	292
APPENDIX IV	Antimony	0.006	ND (0.0014 J)	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0377	0.0148	0.0290	0.0182	0.0187	0.0157	0.0151	0.019
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND (0.0001 J)	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND (0.0013 J)	ND	ND (0.0007 J)	ND (0.0011 J)	ND	ND	ND
	Cobalt	N/R	ND (0.0023 J)	ND (0.0008 J)	ND (0.0025 J)	ND	ND (0.0005 J)	ND (0.0006 J)	ND	ND (0.0010 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.58	0.477 U	0.305 U	0.0659 U	0.199 U	0.294 U	1.03 U	0.0378 U
	Selenium	0.05	0.0132	ND (0.0046 J)	0.0108	ND (0.0054 J)	ND (0.0047 J)	ND (0.004 J)	ND	ND (0.0041 J)
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

Table 5A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance		MCL/ (SMCL)	Well ID							
			GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R	GWC-5R
			9/1/2016	12/1/2016	2/24/2017	5/10/2017	7/17/2017	10/16/2017	2/21/2018	8/7/2018
APPENDIX III	Boron	N/R	ND (0.0191 J)	ND (0.0088 J)	ND (0.0067 J)	ND (0.0068 J)	ND (0.0102 J)	ND (0.0066 J)	ND (0.0268 J)	ND (0.012 J)
	Calcium	N/R	113	141	118	136	125	78.2	64.0	83
	Chloride	(250)	6.6	6.0	3.4	4.5	3.2	9.0	5.6	4.7
	Fluoride	4	ND (0.03 J)	ND	ND (0.03 J)	ND	0.37	ND	ND	ND
	Sulfate	(250)	990	1100	850	1000	830	720	533	784
	TDS	(500)	1400	1610	1200	1360	1340	1080	830	1180
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.0011 J)	ND (0.0013 J)	ND (0.0011 J)	ND (0.00091 J)	ND (0.0021 J)
	Barium	2	0.0345	0.0342	0.0347	0.0363	0.0274	0.0151	0.0174	0.015
	Beryllium	0.004	ND (0.0005 J)	ND (0.0003 J)	ND (0.0002 J)	ND (0.0003 J)	ND (0.0004 J)	ND (0.0006 J)	ND	ND (0.00096 J)
	Cadmium	0.005	ND (0.0005 J)	ND (0.0004 J)	ND (0.0003 J)	ND (0.0003 J)	ND (0.0004 J)	ND (0.0006 J)	ND	ND (0.00083 J)
	Chromium	0.1	ND (0.0021 J)	ND (0.0017 J)	ND (0.0018 J)	ND (0.0024 J)	ND (0.0017 J)	ND (0.0023 J)	ND	ND (0.0024 J)
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.47	0.0588 U	0.487 U	0.289 U	0.528 U	0.558 U	1.13 U	0.510 U
	Selenium	0.05	0.0212	0.0234	0.0154	0.0152	0.0136	0.0242	0.0127	0.021
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

Table 5A
Summary of Background Groundwater Analytical Data - 2016-2018

Substance		MCL/ (SMCL)	Well ID							
			GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R	GWC-6R
			9/1/2016	11/29/2016	2/23/2017	5/10/2017	7/18/2017	10/18/2017	2/19/2018	8/6/2018
APPENDIX III	Boron	N/R	ND (0.0108 J)	ND	ND	ND	ND (0.0061 J)	ND	ND	ND
	Calcium	N/R	56.8	50.7	63.5	105	157	118	124	173
	Chloride	(250)	4.4	4.8	4.4	3.9	4.0	4.1	4.4	3.9
	Fluoride	4	ND (0.28 J)	ND (0.05 J)	ND (0.07 J)	ND (0.02 J)	ND	ND	ND	ND
	Sulfate	(250)	360	320	380	660	880	760	718	797
	TDS	(500)	578	455	614	955	1270	1150	1070	1260
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.0007 J)	ND (0.0010 J)	ND (0.0011 J)	ND	ND (0.0023 J)
	Barium	2	0.0536	0.0459	0.0581	0.0873	0.0994	0.0757	0.0703	0.076
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0015 J)	ND (0.0014 J)	ND (0.0017 J)	ND (0.0015 J)	ND (0.0012 J)	ND (0.0012 J)	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND (0.0028 J)	ND (0.0054 J)	ND (0.0020 J)	ND (0.0026 J)	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.42	0.232 U	1.18 U	0.658 U	0.797 U	0.239 U	0.973	0.866 U
	Selenium	0.05	ND (0.0020 J)	ND (0.0017 J)	ND (0.0018 J)	ND (0.0023 J)	ND (0.0046 J)	ND (0.0037 J)	ND	ND (0.0047 J)
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

Table 5B
Summary of Groundwater Analytical Data - June 2019

	Substance	MCL/ (SMCL)	Well ID							
			GWA-2	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R	
			6/12/2019	6/13/2019	6/12/2019	6/13/2019	6/12/2019	6/13/2019	6/13/2019	
APPENDIX III	Boron	N/R	ND	0.057	ND (0.013 J)	ND	1.5	ND (0.030 J)	ND	
	Calcium	N/R	18.9	33.8	26.6	15.7	24.2	127	146	
	Chloride	(250)	4.7	16.4	9.1	5.0	69.5	5.5	6.2	
	Fluoride	4	ND (0.12 J)	ND	0.58	0.58	ND	ND	ND	
	Sulfate	(250)	83.4	163	180	77.1	92.8	976	918	
	TDS	(500)	226	301	391	136	298	1410	1310	
Required by GWMP	Antimony	0.006	ND	ND	ND	ND	ND (0.00028 J)	ND	ND	
	Arsenic	0.01	ND (0.00038 J)	ND	ND	ND (0.0016 J)	ND (0.00037 J)	ND (0.0012 J)	ND (0.00068 J)	
	Barium	2	0.063	0.033	0.046	0.021	0.017	0.014	0.062	
	Beryllium	0.004	ND	ND	ND	ND (0.00051 J)	ND	ND (0.0015 J)	ND	
	Cadmium	0.005	ND	ND	ND	ND (0.00021 J)	ND	ND (0.00073 J)	ND	
	Chromium	0.1	ND	ND (0.00090 J)	ND	ND (0.00073 J)	ND	ND (0.0018 J)	ND (0.00089 J)	
	Cobalt	N/R	ND (0.0030 J)	ND (0.00033 J)	0.013	0.010	ND (0.00078 J)	ND	ND	
	Copper	1.3	ND (0.00034 J)	ND	ND	ND	ND (0.00025 J)	ND (0.00049 J)	ND (0.0011 J)	
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	
	Nickel	0.1	ND (0.0038 J)	ND (0.00072 J)	ND (0.00043 J)	ND	ND (0.00082 J)	ND (0.0019 J)	ND (0.0037 J)	
	Selenium	0.05	ND	ND	ND (0.0034 J)	ND (0.0089 J)	ND (0.0029 J)	0.027	ND (0.0048 J)	
	Silver	N/A	ND	ND	ND	ND	ND	ND	ND	
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	
	Vanadium	N/A	ND (0.0032 J)	ND	ND (0.00079 J)	ND (0.0021 J)	ND (0.00088 J)	ND	ND	
	Zinc	(5)	ND	ND	ND (0.0019 J)	ND (0.0069 J)	ND	0.015	ND	

Notes:

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

Table 5C
Summary of Groundwater Analytical Data - February 2019

Substance		MCL/ (SMCL)	Well ID							
			GWA-2	GWC-1R	GWC-2R	GWC-3R	GWC-4R	GWC-5R	GWC-6R	
			2/25/2019	2/26/2019	2/26/2019	2/26/2019	2/26/2019	2/26/2019	2/25/2019	
APPENDIX III	Boron	N/R	ND	0.062	ND (0.017 J)	ND (0.0053 J)	0.75	ND (0.033 J)	ND	
	Calcium	N/R	ND (12.7 J)	ND (24.7 J)	ND (20.9 J)	7.1	ND (15.1 J)	94.4	143	
	Chloride	(250)	4.1	20.0	5.7	5.7	42.2	4.2	4.4	
	Fluoride	4	ND (0.14 J)	ND	ND	ND	ND	ND (0.035 J)	ND	
	Sulfate	(250)	42.1	118	129	49.3	55.8	742	763	
	TDS	(500)	92.0	69.0	293	109	226	1010	1160	
Required by GWMP	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.00069 J)	ND (0.00073 J)	
	Barium	2	0.045	0.028	0.056	0.026	0.017	0.014	0.045	
	Beryllium	0.004	ND	ND (0.000075 J)	ND (0.000053 J)	ND (0.00038 J)	ND	ND (0.0015 J)	ND	
	Cadmium	0.005	ND	ND	ND	ND (0.00011 J)	ND	ND (0.00081 J)	ND	
	Chromium	0.1	ND	ND	ND	ND	ND	ND (0.0019 J)	ND	
	Cobalt	N/R	ND (0.0010 J)	ND	0.029	ND	ND	ND	ND	
	Copper	1.3	ND	ND	ND	ND	ND	ND	ND (0.0016 J)	
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	
	Mercury	0.002	ND (0.000074 J)	ND (0.000059 J)	ND (0.000071 J)	ND (0.000064 J)	ND (0.000058 J)	ND (0.000060 J)	ND (0.000067 J)	
	Nickel	0.1	ND (0.0026 J)	ND	ND (0.0068 J)	ND	ND	ND (0.0023 J)	ND (0.0023 J)	
	Selenium	0.05	ND	ND (0.0014 J)	ND (0.0030 J)	ND (0.0020 J)	ND (0.0027 J)	0.024	ND (0.0051 J)	
	Silver	N/A	ND	ND	ND	ND	ND	ND	ND	
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	
	Vanadium	N/A	ND	ND	ND	ND	ND	ND	ND	
	Zinc	(5)	0.013	ND (0.0022 J)	ND (0.0030 J)	ND (0.0033 J)	ND	0.015	ND (0.0028 J)	

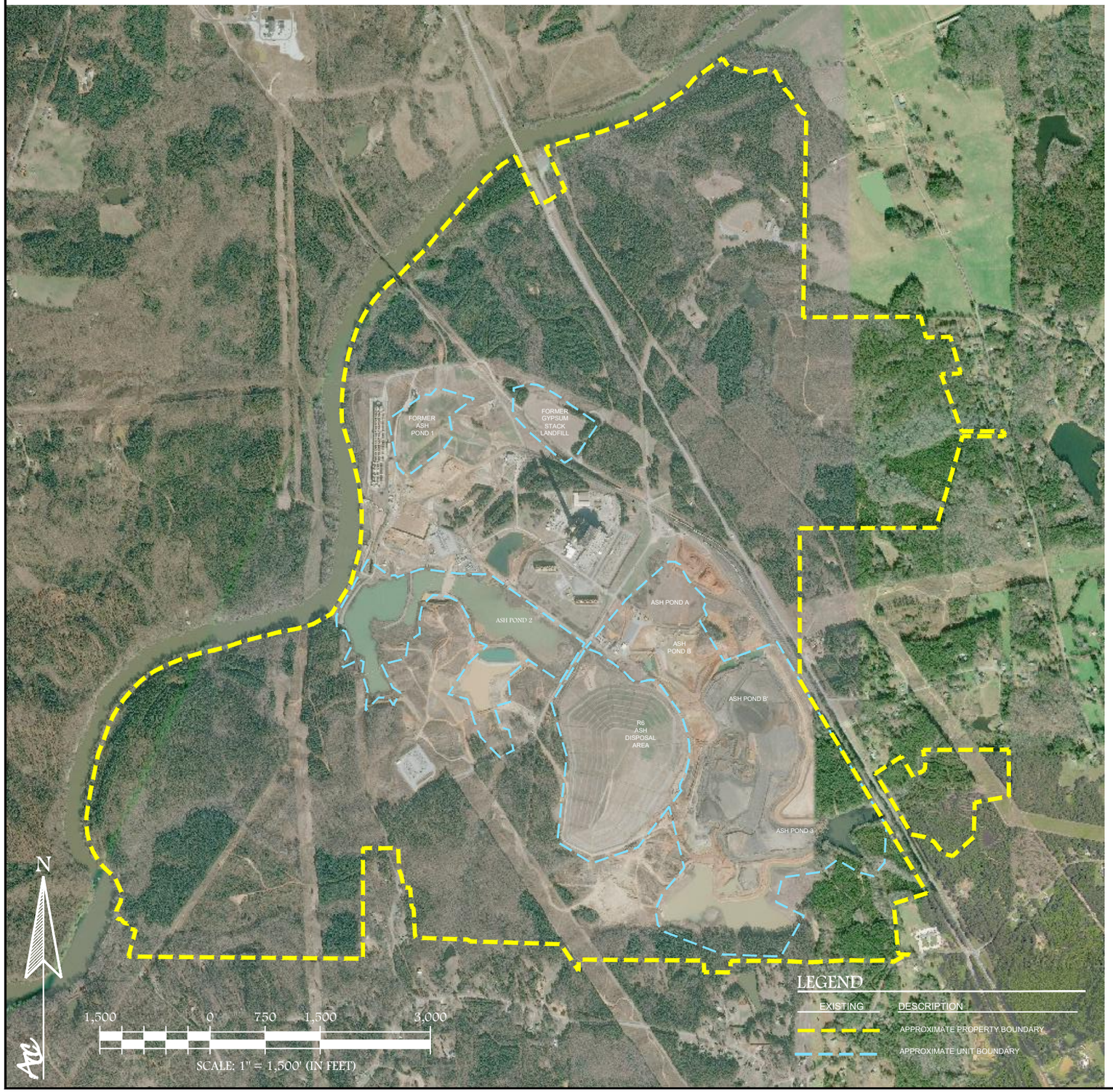
Notes:

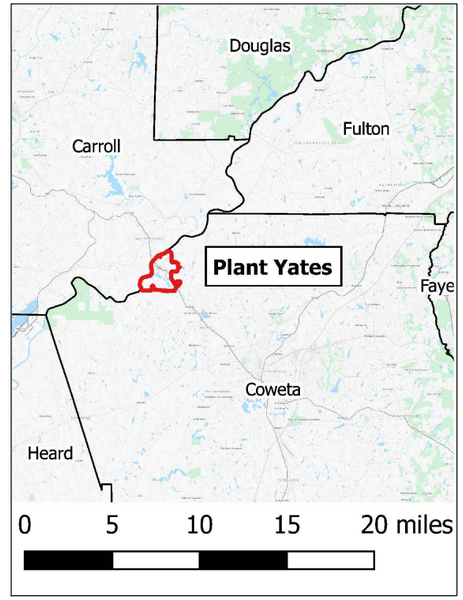
1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter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

Table 6
Statistical Method Summary
June 2019

Statistical Method Summary		
Monitoring Well Network	Upgradient Wells	GWA-2
	Downgradient Wells	GWC-1R, GWC-2R, GWC-3R, GWC-4R, GWC-5R, GWC-6R
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, TDS
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium
Statistical Methodology	Data Screening Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell (boron, calcium, chloride, sulfate, and TDS) or intrawell (fluoride and pH) statistical limits are on constituent-specific basis, depending on the appropriateness of the method as determined by the Analysis of Variance

FIGURES





ATLANTIC COAST CONSULTING, INC.
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770.594.5998
www.atlcc.net

PROJECT:

PLANT YATES

708 DYER ROAD
NEWNAN, GEORGIA

REVISIONS

Drawn by: MM

Checked by: EP

PROJECT NUMBER:

I054-110

July 2019

SITE LOCATION MAP

FIGURE 1

NOTE:
1. WELLS WITH "I" SUFFIXES MONITOR DEEPER INTERVALS AND ARE NOT USED TO CONSTRUCT WATER TABLE CONTOURS.

GWC-4R

GWC-2R

GWC-1R

GWC-6R

FORMER GYPSUM STACK LANDFILL

GWC-3R

GWC-5R

GWA-2

LEGEND

EXISTING	DESCRIPTION
	RAILROAD
	ACCESS ROAD
	PERMITTED UNIT BOUNDARY
GWC-5R	GROUNDWATER MONITORING WELL

N

200 0 100 200 400

SCALE: 1" = 200' (IN FEET)

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PROJECT:
PLANT YATES

708 DYER ROAD
NEWNAN, GEORGIA

REVISIONS

Drawn by: MM
Checked by: EP

PROJECT NUMBER:
I054-110
July 2019

WELL LOCATION MAP

FIGURE 2

Groundwater Elevations and Well Depths
Plant Yates Gypsum Landfill June 2019

Monitoring Well ID	Well Depth (ft btoc)	Top of Casing (MSL)	Depth to Water (feet)	GW Elevation (MSL)
GWA-2	52.13	805.31	36.08	769.23
GWC-1R	36.34	773.28	21.22	752.06
GWC-2R	43.80	769.41	27.38	742.03
GWC-3R	38.33	775.28	27.23	748.05
GWC-4R	31.05	757.02	15.03	741.99
GWC-5R	42.80	782.54	27.43	755.11
GWC-6R	51.87	788.60	34.10	754.50

Notes:
1. ft btoc - feet below top of casing.
2. MSL = Mean Sea Level (NGVD 1929).
3. Depths to water measured on June 12, 2019.

NOTE:
1. WELLS WITH "I" SUFFIXES MONITOR DEEPER INTERVALS AND ARE NOT USED TO CONSTRUCT WATER TABLE CONTOURS.

GWC-4R 741.99
GWC-2R 742.03
GWC-1R 752.06
GWC-6R 754.50
GWC-3R 748.05
GWC-5R 755.11
GWA-2 769.23

745 750 755 760 765

FORMER GYPSUM STACK LANDFILL

LEGEND

EXISTING	DESCRIPTION
	RAILROAD
	ACCESS ROAD
	PERMITTED BOUNDARY
750	WATER TABLE CONTOUR
	GROUNDWATER FLOW DIRECTION (INFERRED)
GWA-2 769.23	GROUNDWATER MONITORING WELL GROUNDWATER ELEVATION (MEAN SEA LEVEL)

N

200 0 100 200 400

SCALE: 1" = 200' (IN FEET)

EVAN B. PERRY GEORGIA REGISTERED PROFESSIONAL GEOLOGIST No. 1764

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PROJECT:
PLANT YATES

708 DYER ROAD
NEWNAN, GEORGIA

REVISIONS

Drawn by: MM
Checked by: EP

PROJECT NUMBER:
I054-110
July 2019

JUNE 2019
WATER TABLE
CONTOUR MAP

FIGURE 3

APPENDICES

APPENDIX A

LABORATORY ANALYTICAL AND FIELD SAMPLING REPORTS

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

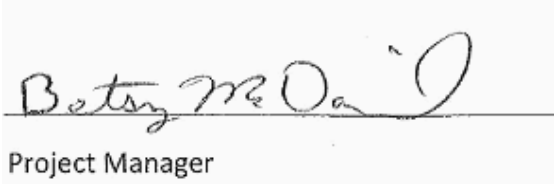
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZI0020**
September 12, 2016
Project: CCR Event
Project #:Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-1R	AZI0020-01	Ground Water	08/31/16 11:38	09/01/16 09:00
GWC-3R	AZI0020-02	Ground Water	08/31/16 16:01	09/01/16 09:00
GWA-2	AZI0020-03	Ground Water	08/31/16 10:53	09/01/16 09:00
GWC-2R	AZI0020-04	Ground Water	08/31/16 14:20	09/01/16 09:00

PACE ANALYTICAL SERVICES, INC.

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110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0020
Client ID: GWC-1R
Date/Time Sampled: 8/31/2016 11:38:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0020-01
Date/Time Received: 9/1/2016 9:00:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	616	25	10	mg/L	SM 2540 C		1	09/06/16 19:00	09/06/16 19:00	6090102	JPT
Inorganic Anions											
Chloride	7.6	0.25	0.01	mg/L	EPA 300.0		1	09/03/16 09:59	09/04/16 05:48	6090083	RLC
Fluoride	0.05	0.30	0.02	mg/L	EPA 300.0	J	1	09/03/16 09:59	09/04/16 05:48	6090083	RLC
Sulfate	410	20	1.0	mg/L	EPA 300.0		20	09/03/16 09:59	09/05/16 17:16	6090083	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Barium	0.0711	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Beryllium	0.0001	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Boron	0.0553	0.100	0.0064	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Calcium	69.4	5.00	0.311	mg/L	EPA 6020B		10	09/06/16 09:45	09/08/16 15:49	6090081	CSW
Chromium	0.0012	0.0100	0.0009	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Selenium	0.0039	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Lithium	0.0024	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:27	6090081	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 09:10	09/06/16 14:39	6090077	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0020
Client ID: GWC-3R
Date/Time Sampled: 8/31/2016 4:01:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0020-02
Date/Time Received: 9/1/2016 9:00:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	216	25	10	mg/L	SM 2540 C		1	09/06/16 19:00	09/06/16 19:00	6090102	JPT
Inorganic Anions											
Chloride	6.7	0.25	0.01	mg/L	EPA 300.0		1	09/03/16 09:59	09/04/16 06:10	6090083	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	09/03/16 09:59	09/04/16 06:10	6090083	RLC
Sulfate	87	5.0	0.26	mg/L	EPA 300.0		5	09/03/16 09:59	09/05/16 17:37	6090083	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Barium	0.0286	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Beryllium	0.0003	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Boron	0.0315	0.100	0.0064	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/07/16 17:48	6090081	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Calcium	7.23	0.500	0.0311	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Chromium	0.0013	0.0100	0.0009	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Selenium	0.0038	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:32	6090081	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 09:10	09/06/16 14:41	6090077	MTC

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0020
Client ID: GWA-2
Date/Time Sampled: 8/31/2016 10:53:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0020-03
Date/Time Received: 9/1/2016 9:00:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	209	25	10	mg/L	SM 2540 C		1	09/06/16 19:00	09/06/16 19:00	6090102	JPT
Inorganic Anions											
Chloride	4.0	0.25	0.01	mg/L	EPA 300.0		1	09/03/16 09:59	09/04/16 06:52	6090083	RLC
Fluoride	0.14	0.30	0.02	mg/L	EPA 300.0	J	1	09/03/16 09:59	09/04/16 06:52	6090083	RLC
Sulfate	29	1.0	0.05	mg/L	EPA 300.0		1	09/03/16 09:59	09/04/16 06:52	6090083	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Barium	0.0542	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/06/16 09:45	09/07/16 17:48	6090081	CSW
Boron	0.0315	0.100	0.0064	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/09/16 17:48	6090081	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Calcium	9.31	2.50	0.155	mg/L	EPA 6020B		5	09/06/16 09:45	09/08/16 13:27	6090081	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Cobalt	0.0053	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:38	6090081	CSW
Lithium	ND	0.0500	0.0103	mg/L	EPA 6020B		5	09/06/16 09:45	09/08/16 13:27	6090081	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 09:10	09/06/16 14:44	6090077	MTC

PACE ANALYTICAL SERVICES, INC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0020
Client ID: GWC-2R
Date/Time Sampled: 8/31/2016 2:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0020-04
Date/Time Received: 9/1/2016 9:00:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	257	25	10	mg/L	SM 2540 C		1	09/06/16 19:00	09/06/16 19:00	6090102	JPT
Inorganic Anions											
Chloride	6.3	0.25	0.01	mg/L	EPA 300.0		1	09/03/16 09:59	09/04/16 07:13	6090083	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	09/03/16 09:59	09/04/16 07:13	6090083	RLC
Sulfate	140	5.0	0.26	mg/L	EPA 300.0		5	09/03/16 09:59	09/05/16 17:57	6090083	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Barium	0.0601	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/06/16 09:45	09/07/16 17:53	6090081	CSW
Boron	0.0305	0.100	0.0064	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/07/16 17:53	6090081	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Calcium	19.9	2.50	0.155	mg/L	EPA 6020B		5	09/06/16 09:45	09/08/16 13:33	6090081	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Cobalt	0.0239	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Selenium	0.0029	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 09:45	09/06/16 18:56	6090081	CSW
Lithium	ND	0.0500	0.0103	mg/L	EPA 6020B		5	09/06/16 09:45	09/08/16 13:33	6090081	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 09:10	09/06/16 14:46	6090077	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0020

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090102 - SM 2540 C											
Blank (6090102-BLK1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090102-BS1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	398	25	10	mg/L	400.00		100	84-108			
Duplicate (6090102-DUP1)		**Source: AZI0019-08**				Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	366	25	10	mg/L		389			6	10	
Duplicate (6090102-DUP2)		**Source: AZI0022-01**				Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	3490	25	10	mg/L		3460			0.9	10	

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0020

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090083 - EPA 300.0											
Blank (6090083-BLK1)						Prepared & Analyzed: 09/03/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6090083-BS1)						Prepared & Analyzed: 09/03/16					
Chloride	10.1	0.25	0.01	mg/L	10.010		100	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.010		103	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		101	90-110			
Matrix Spike (6090083-MS1)		**Source: AZI0019-06**				Prepared: 09/03/16 Analyzed: 09/04/16					
Chloride	13.6	0.25	0.01	mg/L	10.010	3.52	100	90-110			
Fluoride	10.9	0.30	0.02	mg/L	10.010	0.65	103	90-110			
Sulfate	207	1.0	0.05	mg/L	10.010	217	NR	90-110			QM-02
Matrix Spike (6090083-MS2)		**Source: AZI0020-02**				Prepared: 09/03/16 Analyzed: 09/04/16					
Chloride	17.1	0.25	0.01	mg/L	10.010	6.74	103	90-110			
Fluoride	11.1	0.30	0.02	mg/L	10.010	0.07	110	90-110			
Sulfate	85.3	1.0	0.05	mg/L	10.010	84.2	11	90-110			QM-05
Matrix Spike Dup (6090083-MSD1)		**Source: AZI0019-06**				Prepared: 09/03/16 Analyzed: 09/04/16					
Chloride	13.7	0.25	0.01	mg/L	10.010	3.52	101	90-110	0.6	15	
Fluoride	11.0	0.30	0.02	mg/L	10.010	0.65	103	90-110	0.8	15	
Sulfate	207	1.0	0.05	mg/L	10.010	217	NR	90-110	0.09	15	QM-02

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0020

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090077 - EPA 7470A											
Blank (6090077-BLK1)						Prepared & Analyzed: 09/06/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6090077-BS1)						Prepared & Analyzed: 09/06/16					
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			
Matrix Spike (6090077-MS1)		**Source: AZI0021-02**				Prepared & Analyzed: 09/06/16					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (6090077-MSD1)		**Source: AZI0021-02**				Prepared & Analyzed: 09/06/16					
Mercury	0.00234	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	0.5	20	
Post Spike (6090077-PS1)		**Source: AZI0021-02**				Prepared & Analyzed: 09/06/16					
Mercury	1.67			ug/L	1.6667	0.00498	100	80-120			
Batch 6090081 - EPA 3005A											
Blank (6090081-BLK1)						Prepared & Analyzed: 09/06/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0020

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090081 - EPA 3005A											
LCS (6090081-BS1)						Prepared & Analyzed: 09/06/16					
Antimony	0.0970	0.0030	0.0008	mg/L	0.10000		97	80-120			
Arsenic	0.0990	0.0050	0.0016	mg/L	0.10000		99	80-120			
Barium	0.0955	0.0100	0.0004	mg/L	0.10000		96	80-120			
Beryllium	0.0976	0.0030	0.00008	mg/L	0.10000		98	80-120			
Boron	1.02	0.100	0.0064	mg/L	1.0000		102	80-120			
Cadmium	0.0949	0.0010	0.00007	mg/L	0.10000		95	80-120			
Calcium	0.972	0.500	0.0311	mg/L	1.0000		97	80-120			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000		104	80-120			
Cobalt	0.0993	0.0100	0.0005	mg/L	0.10000		99	80-120			
Copper	0.100	0.0050	0.0005	mg/L	0.10000		100	80-120			
Lead	0.0967	0.0050	0.0001	mg/L	0.10000		97	80-120			
Molybdenum	0.0997	0.0100	0.0017	mg/L	0.10000		100	80-120			
Nickel	0.0986	0.0050	0.0006	mg/L	0.10000		99	80-120			
Selenium	0.0997	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.0965	0.0050	0.0005	mg/L	0.10000		96	80-120			
Thallium	0.0975	0.0010	0.0002	mg/L	0.10000		97	80-120			
Vanadium	0.112	0.0100	0.0071	mg/L	0.10000		112	80-120			
Zinc	0.112	0.0100	0.0021	mg/L	0.10000		112	80-120			
Lithium	0.0988	0.0500	0.0021	mg/L	0.10000		99	80-120			
Matrix Spike (6090081-MS1)		**Source: AZI0022-01**				Prepared & Analyzed: 09/06/16					
Antimony	0.0998	0.0030	0.0008	mg/L	0.10000	0.0014	98	75-125			
Arsenic	0.116	0.0050	0.0016	mg/L	0.10000	0.0144	102	75-125			
Barium	0.161	0.0100	0.0004	mg/L	0.10000	0.0627	98	75-125			
Beryllium	0.0842	0.0030	0.00008	mg/L	0.10000	0.0004	84	75-125			
Boron	25.9	5.00	0.321	mg/L	1.0000	24.1	179	75-125			QM-02
Cadmium	0.0937	0.0010	0.00007	mg/L	0.10000	ND	94	75-125			
Calcium	261	25.0	1.55	mg/L	1.0000	250	NR	75-125			QM-02
Chromium	0.110	0.0100	0.0009	mg/L	0.10000	0.0021	108	75-125			
Cobalt	0.109	0.0100	0.0005	mg/L	0.10000	0.0089	100	75-125			
Copper	0.0954	0.0050	0.0005	mg/L	0.10000	0.0006	95	75-125			
Lead	0.0996	0.0050	0.0001	mg/L	0.10000	0.0113	88	75-125			
Molybdenum	0.108	0.0100	0.0017	mg/L	0.10000	ND	108	75-125			
Nickel	0.0995	0.0050	0.0006	mg/L	0.10000	0.0037	96	75-125			
Selenium	0.109	0.0100	0.0010	mg/L	0.10000	0.0023	106	75-125			
Silver	0.0892	0.0050	0.0005	mg/L	0.10000	ND	89	75-125			
Thallium	0.0921	0.0010	0.0002	mg/L	0.10000	ND	92	75-125			
Vanadium	0.121	0.0100	0.0071	mg/L	0.10000	ND	121	75-125			
Zinc	5.05	0.0100	0.0021	mg/L	0.10000	4.92	131	75-125			
Lithium	0.0898	0.0500	0.0021	mg/L	0.10000	ND	90	75-125			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0020

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090081 - EPA 3005A											
Matrix Spike Dup (6090081-MSD1)		**Source: AZI0022-01**			Prepared & Analyzed: 09/06/16						
Antimony	0.0987	0.0030	0.0008	mg/L	0.10000	0.0014	97	75-125	1	20	
Arsenic	0.118	0.0050	0.0016	mg/L	0.10000	0.0144	104	75-125	2	20	
Barium	0.159	0.0100	0.0004	mg/L	0.10000	0.0627	96	75-125	1	20	
Beryllium	0.0882	0.0030	0.00008	mg/L	0.10000	0.0004	88	75-125	5	20	
Boron	24.3	5.00	0.321	mg/L	1.0000	24.1	13	75-125	7	20	QM-02
Cadmium	0.0909	0.0010	0.00007	mg/L	0.10000	ND	91	75-125	3	20	
Calcium	249	25.0	1.55	mg/L	1.0000	250	NR	75-125	5	20	QM-02
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	0.0021	102	75-125	6	20	
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000	0.0089	97	75-125	4	20	
Copper	0.0890	0.0050	0.0005	mg/L	0.10000	0.0006	88	75-125	7	20	
Lead	0.101	0.0050	0.0001	mg/L	0.10000	0.0113	90	75-125	1	20	
Molybdenum	0.106	0.0100	0.0017	mg/L	0.10000	ND	106	75-125	2	20	
Nickel	0.0967	0.0050	0.0006	mg/L	0.10000	0.0037	93	75-125	3	20	
Selenium	0.105	0.0100	0.0010	mg/L	0.10000	0.0023	102	75-125	4	20	
Silver	0.0874	0.0050	0.0005	mg/L	0.10000	ND	87	75-125	2	20	
Thallium	0.0943	0.0010	0.0002	mg/L	0.10000	ND	94	75-125	2	20	
Vanadium	0.118	0.0100	0.0071	mg/L	0.10000	ND	118	75-125	3	20	
Zinc	4.91	0.0100	0.0021	mg/L	0.10000	4.92	NR	75-125	3	20	
Lithium	0.0956	0.0500	0.0021	mg/L	0.10000	ND	96	75-125	6	20	
Post Spike (6090081-PS1)		**Source: AZI0022-01**			Prepared & Analyzed: 09/06/16						
Antimony	99.1			ug/L	100.00	1.42	98	80-120			
Arsenic	115			ug/L	100.00	14.4	101	80-120			
Barium	158			ug/L	100.00	62.7	95	80-120			
Beryllium	85.8			ug/L	100.00	0.382	85	80-120			
Boron	24500			ug/L	1000.0	24100	36	80-120			QM-02
Cadmium	89.6			ug/L	100.00	0.0388	90	80-120			
Calcium	243000			ug/L	1000.0	250000	NR	80-120			QM-02
Chromium	105			ug/L	100.00	2.07	103	80-120			
Cobalt	106			ug/L	100.00	8.86	97	80-120			
Copper	89.8			ug/L	100.00	0.564	89	80-120			
Lead	100			ug/L	100.00	11.3	89	80-120			
Molybdenum	104			ug/L	100.00	0.165	103	80-120			
Nickel	96.1			ug/L	100.00	3.70	92	80-120			
Selenium	104			ug/L	100.00	2.29	102	80-120			
Silver	86.3			ug/L	100.00	0.0004	86	80-120			
Thallium	91.4			ug/L	100.00	0.141	91	80-120			
Vanadium	118			ug/L	100.00	4.37	114	80-120			
Zinc	4920			ug/L	100.00	4920	NR	80-120			
Lithium	99.7			ug/L	100.00	1.36	98	80-120			

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Southern Company Services

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd. SE, B10185
Atlanta, GA 30308

REPORT TO: Joju Abraham
JABRAHAM@southernco.com

CC: MRPADILL@southernco.com
CHMCCORK@southernco.com
LLMILLET@southernco.com

REQUESTED COMPLETION DATE: STANDARD

PO #:

PROJECT NAME/STATE: Yates Gypsum Storage Phase 2 CCR

PROJECT #:

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals App. III & IV EPA 6020/7470 (P, 3)	IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C (P, 7)	Radium 226 & 228 SW-846 9315/9320 (P, 3)	LAB ID NUMBER
8/31/16	1138	GW		X	GWC-1R	3		1	1	1	1
8/31/16	1601	GW		X	GWC-3R	3		1	1	1	2

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:
DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: Charles Watson	DATE/TIME: 8/31/16	RELINQUISHED BY:	DATE/TIME: 9/1/16 0703
RECEIVED BY:	DATE/TIME: 9/1/16 0703	RELINQUISHED BY:	DATE/TIME: 9/1/16 0900
RECEIVED BY LAB:	DATE/TIME: 9/1/16 0900	SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS	
pH checked: Yes No NA	Ice: Yes No NA	Temperature: 3 Min: 3°C Max:	Custody Seal: Intact Broken Not Present; # of Coolers; Cooler ID:

FOR LAB USE ONLY
LAB #: AZF0020
Entered into LIMS: 1214
Tracking #:

file

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asl-lab.com

CLIENT NAME: Southern Company Services

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd. SE, B10185
Atlanta, GA 30308

REPORT TO: Joju Abraham
JABRAHAM@southernco.com

CC: MRPADILL@southernco.com
CHMCCORK@southernco.com
LLMILLET@southernco.com

REQUESTED COMPLETION DATE: STANDARD

PO #:

PROJECT NAME/STATE: Yates Gypsum Storage Phase 2 CCR

PROJECT #:

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV EPA 6020/7470 (P, 3)	IC (Cl, F, SO4) EPA 300.0; TDS SM 2540C (P, 7)	Radium 226 & 228 SW-846 9315/9320 (P, 3)	LAB ID NUMBER
8/31/16	1053	GW		X	GWA-2	3	1	1	1	3
8/31/16	1420	GW		X	GWC-2R	3	1	1	1	4

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:
DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: B. Hilliard S&A	DATE/TIME: 8/31/16	
RELINQUISHED BY: [signature]	DATE/TIME: 8/31/16 0703	
RECEIVED BY: [signature]	DATE/TIME: 9/1/16 0703	
RELINQUISHED BY: [signature]	DATE/TIME: 9/1/16 9:00	
RECEIVED BY LAB: [signature]	DATE/TIME: 9/1/16 0900	

FOR LAB USE ONLY
LAB #: AZI 0070
Entered into LIMS: (JG)
Tracking #:

pH checked: Yes / No / NA
Ice: Yes / No / NA
Temperature: 3°C Min: 3°C Max: 7°C

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
Custody Seal: Not Broken Not Present
# of Coolers:
Cooler ID:

file

PACE ANALYTICAL SERVICES, INC.

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110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 9/12/2016 3:11:31PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 09/01/16 09:00

Work Order: AZI0020
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 4 **#Containers:** 12

Minimum Temp(C): 3.0 **Maximum Temp(C):** 3.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 03, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195004

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on September 02, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195004

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195004

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195004001	**GWC-1R**	Water	08/31/16 11:38	09/02/16 10:20
30195004002	**GWC-3R**	Water	08/31/16 16:01	09/02/16 10:20

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195004

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195004001	**GWC-1R**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30195004002	**GWC-3R**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195004

Sample: GWC-1R **Lab ID: 30195004001** Collected: 08/31/16 11:38 Received: 09/02/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0702 ± 0.147 (0.329) C:88% T:NA**	pCi/L	09/14/16 11:29	13982-63-3	
Radium-228	EPA 9320	**1.01 ± 0.412 (0.618) C:76% T:84%**	pCi/L	09/22/16 21:46	15262-20-1	
Total Radium	Total Radium Calculation	**1.08 ± 0.559 (0.947)**	pCi/L	09/23/16 13:04	7440-14-4	

Sample: GWC-3R **Lab ID: 30195004002** Collected: 08/31/16 16:01 Received: 09/02/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0837 ± 0.114 (0.238) C:88% T:NA**	pCi/L	09/14/16 11:29	13982-63-3	
Radium-228	EPA 9320	**0.377 ± 0.351 (0.711) C:81% T:77%**	pCi/L	09/22/16 21:46	15262-20-1	
Total Radium	Total Radium Calculation	**0.461 ± 0.465 (0.949)**	pCi/L	09/23/16 13:04	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195004

QC Batch: 232409 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195004001, 30195004002

METHOD BLANK: 1138994 Matrix: Water
Associated Lab Samples: 30195004001, 30195004002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.716 ± 0.356 (0.609) C:84% T:86%	pCi/L	09/22/16 21:46	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195004

QC Batch: 232408 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195004001, 30195004002

METHOD BLANK: 1138993 Matrix: Water
Associated Lab Samples: 30195004001, 30195004002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0402 ± 0.0839 (0.189) C:94% T:NA	pCi/L	09/14/16 11:05	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Greensburg, PA 15601
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QUALIFIERS

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195004

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WO#:30195004

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, G
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME:	Southern Company Services
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	241 Ralph McGill Blvd. SE, B10185 Atlanta, GA 30308
REPORT TO:	Joju Abraham JABRAHAM@southernco.com
CC:	MRPADILL@southernco.com CHMCCORK@southernco.com LLMILLET@southernco.com
REQUESTED COMPLETION DATE:	STANDARD
PO #:	
PROJECT NAME/STATE	Yates Gypsum Storage Phase 2 CCR
PROJECT #:	

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals App. III & IV EPA 6020/7470	IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C	Radium 226 & 228 SW-846 9315/9320						LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE:			P	P	P							
					PRESERVATION:			3	7	3							
8/31/16	1138	GW		X	GWC-1R	3		1	1	1							001
8/31/16	1601	GW		X	GWC-3R	3		1	1	1							002

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

SAMPLED BY AND TITLE:	Charles Watson	DATE/TIME:	8/31/16
RECEIVED BY:		DATE/TIME:	9/1/16 0703
RECEIVED BY LAB:		DATE/TIME:	9/1/16 0900
pH checked: Yes No NA	Ice: Yes No NA	Temperature: 3 < Min: 3°C	Max:

RELINQUISHED BY:		DATE/TIME:	9/1/16 0703
RELINQUISHED BY:		DATE/TIME:	9/1/16 9:00
SAMPLE SHIPPED VIA:	UPS FED-EX USPS	COURIER	CLIENT OTHER FS
Custody Seal:	Intact Broken Not Present	# of Coolers	Cooler ID:

FOR LAB USE ONLY
LAB #:
Entered into LIMS:
Tracking #:

9-2-16 1020

file

Sample Condition Upon Receipt Pittsburgh

30195004

Pace Analytical

Client Name: Georgia Power Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 6612 5098 8161

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp °C Correction Factor: °C Final Temp: °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 9-2-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:		✓		4. no Signature
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: GW, W, WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:		✓		
Containers Intact:	✓			11.
Filtered volume received for Dissolved tests			✓	12.
All containers needing preservation have been checked.	✓			13. all below 2 PH
All containers needing preservation are found to be in compliance with EPA recommendation.	✓			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed ML Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	14.
Trip Blank Present:		✓		15.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr		✓		Initial when completed: ML Date: 9-2-16

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	WRR
Date:	9/21/2016
Worklist:	31292
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1138993
MB concentration:	0.040
M/B Counting Uncertainty:	0.084
MB MDC:	0.189
MB Numerical Performance Indicator:	0.94
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31292	LCSD31292
Count Date:	9/14/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.678	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.514	
Target Conc. (pCi/L, g, F):	8.685	
Uncertainty (Calculated):	0.409	
Result (pCi/L, g, F):	7.435	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.631	
Numerical Performance Indicator:	-3.26	
Percent Recovery:	85.61%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195006001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195006001Dup	
Sample Result (pCi/L, g, F):	1.011	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.292	
Sample Duplicate Result (pCi/L, g, F):	0.838	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.295	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	0.819	30195006001
Duplicate RPD:	18.76%	30195006001Dup
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	9/12/2016
Worklist:	31293
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1138994
MB concentration:	0.716
M/B Counting Uncertainty:	0.332
MB MDC:	0.609
MB Numerical Performance Indicator:	4.22
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31293	LCSD31293
Count Date:	9/22/2016	
Spike I.D.:	16-025	
Spike Concentration (pCi/mL):	25.604	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.811	
Target Conc. (pCi/L, g, F):	6.316	
Uncertainty (Calculated):	0.455	
Result (pCi/L, g, F):	6.066	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.768	
Numerical Performance Indicator:	-0.55	
Percent Recovery:	96.04%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195006001	Enter Duplicate
Duplicate Sample I.D.	30195006001DUP	sample IDs if
Sample Result (pCi/L, g, F):	1.460	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.455	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	2.259	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.522	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-2.261	30195006001
Duplicate RPD:	42.96%	30195006001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*The method blank result is below the reporting limit for this analysis and is acceptable.

***Batch must be re-prepped due to unacceptable precision.

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 28, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195002

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on September 02, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195002

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195002

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195002001	**GWA-2**	Water	08/31/16 10:53	09/02/16 10:20
30195002002	**GWA-2R**	Water	08/31/16 14:20	09/02/16 10:20

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195002

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195002001	**GWA-2**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30195002002	**GWA-2R**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195002

Sample: GWA-2 **Lab ID: 30195002001** Collected: 08/31/16 10:53 Received: 09/02/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.332 ± 0.146 (0.178) C:79% T:NA**	pCi/L	09/14/16 12:50	13982-63-3	
Radium-228	EPA 9320	**0.869 ± 0.406 (0.661) C:77% T:82%**	pCi/L	09/22/16 22:12	15262-20-1	
Total Radium	Total Radium Calculation	**1.20 ± 0.552 (0.839)**	pCi/L	09/26/16 14:07	7440-14-4	

Sample: GWA-2R **Lab ID: 30195002002** Collected: 08/31/16 14:20 Received: 09/02/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.179 ± 0.118 (0.190) C:75% T:NA**	pCi/L	09/14/16 12:50	13982-63-3	
Radium-228	EPA 9320	**0.0706 ± 0.337 (0.771) C:73% T:85%**	pCi/L	09/22/16 22:12	15262-20-1	
Total Radium	Total Radium Calculation	**0.250 ± 0.455 (0.961)**	pCi/L	09/26/16 14:07	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195002

QC Batch: 232405 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195002001, 30195002002

METHOD BLANK: 1138990 Matrix: Water
Associated Lab Samples: 30195002001, 30195002002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0580 ± 0.0928 (0.200) C:77% T:NA	pCi/L	09/14/16 09:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195002

QC Batch: 232402 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195002001, 30195002002

METHOD BLANK: 1138986 Matrix: Water
Associated Lab Samples: 30195002001, 30195002002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.673 ± 0.390 (0.724) C:85% T:84%	pCi/L	09/22/16 21:43	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Yates Gypsum Storage Phase 2 C
Pace Project No.: 30195002

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, G
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

WO#:30195002

30195002

CLIENT NAME: Southern Company Services

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd. SE, B10185
Atlanta, GA 30308

REPORT TO: Joju Abraham
JABRAHAM@southernco.com

CC: MRPADILL@southernco.com
CHMCCORK@southernco.com
LLMILLET@southernco.com

REQUESTED COMPLETION DATE: STANDARD

PO #:

PROJECT NAME/STATE: Yates Gypsum Storage Phase 2 CCR

PROJECT #:

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals App. III & IV EPA 6020/7470 (CONTAINER TYPE: P, PRESERVATION: 3)	IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C (P, 7)	Radium 226 & 228 SW-846 9315/9320 (P, 3)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
8/31/16	1053	GW		X	GWA-2	3		1	1	1		001
8/31/16	1420	GW		X	GWC-2R	3		1	1	1		002

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: S. Hilliard S-Rep — DATE/TIME: 8/31/16

RELINQUISHED BY: — DATE/TIME: 8/31/16 0703

RECEIVED BY: — DATE/TIME: 9/1/16 0703

RELINQUISHED BY: — DATE/TIME: 9/1/16 0900

RECEIVED BY LAB: — DATE/TIME: 9/1/16 0900

pH checked: Yes No NA

Ice: Yes No NA

Temperature: 3°C Min: 3°C Max:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

Custody Seal: Intact Broken Not Present

# of Coolers:

Cooler ID:

FOR LAB USE ONLY

LAB #:

Entered into LIMS:

Tracking #:

file

9-2-16 1020

Sample Condition Upon Receipt Pittsburgh

30195002

Pace Analytical

Client Name: Georgia Power Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 6812 5098 9161

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp °C Correction Factor: °C Final Temp: °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 9-2-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4. ~~No Signature~~ Signature on COC, Relinquished by is sampler 9/2/16
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: GW, W, WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:		✓		
Containers Intact:	✓			11.
Filtered volume received for Dissolved tests			✓	12.
All containers needing preservation have been checked.	✓			13. all below 2 PH
All containers needing preservation are found to be in compliance with EPA recommendation.	✓			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed ML Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	14.
Trip Blank Present:		✓		15.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr		✓		Initial when completed: ML Date: 9-2-16

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JLW
Date:	9/12/2016
Worklist:	31286
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1138986
MB concentration:	0.673
M/B Counting Uncertainty:	0.371
MB MDC:	0.724
MB Numerical Performance Indicator:	3.55
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31286	LCSD31286
Count Date:	9/22/2016	
Spike I.D.:	16-025	
Spike Concentration (pCi/mL):	25.604	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.801	
Target Conc. (pCi/L, g, F):	6.393	
Uncertainty (Calculated):	0.460	
Result (pCi/L, g, F):	8.562	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.792	
Numerical Performance Indicator:	4.64	
Percent Recovery:	133.93%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30194996003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30194996003DUP	
Sample Result (pCi/L, g, F):	1.218	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.440	
Sample Duplicate Result (pCi/L, g, F):	2.067	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.494	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-2.517	30194996003
Duplicate RPD:	51.73%	30194996003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

LMDC
Caplet

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	WRR
Date:	9/9/2016
Worklist:	31289
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1138990
MB concentration:	0.058
M/B Counting Uncertainty:	0.092
MB MDC:	0.200
MB Numerical Performance Indicator:	1.23
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31289	LCSD31289
Count Date:	9/14/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.678	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.503	
Target Conc. (pCi/L, g, F):	8.882	
Uncertainty (Calculated):	0.418	
Result (pCi/L, g, F):	7.333	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.556	
Numerical Performance Indicator:	-4.37	
Percent Recovery:	82.56%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195003003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195003003DUP	
Sample Result (pCi/L, g, F):	0.079	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.107	
Sample Duplicate Result (pCi/L, g, F):	0.174	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.171	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.916	30195003003
Duplicate RPD:	74.55%	30195003003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

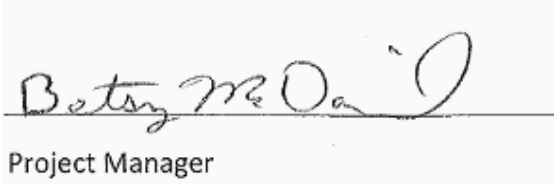
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZI0048**
September 12, 2016
Project: CCR Event
Project #:Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-4R	AZI0048-01	Ground Water	09/01/16 08:49	09/02/16 08:35
FB-2	AZI0048-02	DI Water	09/01/16 11:17	09/02/16 08:35
GWC-6R	AZI0048-03	Ground Water	09/01/16 11:27	09/02/16 08:35
Dup-2	AZI0048-04	Ground Water	09/01/16 00:00	09/02/16 08:35
GWC-5R	AZI0048-05	Ground Water	09/01/16 12:59	09/02/16 08:35
EQB-2	AZI0048-06	DI Water	09/01/16 14:15	09/02/16 08:35

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048
Client ID: GWC-4R
Date/Time Sampled: 9/1/2016 8:49:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0048-01
Date/Time Received: 9/2/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	553	25	10	mg/L	SM 2540 C		1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	190	2.5	0.14	mg/L	EPA 300.0		10	09/04/16 10:35	09/06/16 22:07	6090086	RLC
Fluoride	0.15	0.30	0.02	mg/L	EPA 300.0	J	1	09/04/16 10:35	09/04/16 20:19	6090086	RLC
Sulfate	150	10	0.51	mg/L	EPA 300.0		10	09/04/16 10:35	09/06/16 22:07	6090086	RLC
Metals, Total											
Antimony	0.0014	0.0030	0.0008	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Barium	0.0377	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Boron	3.25	0.500	0.0321	mg/L	EPA 6020B		5	09/06/16 10:15	09/08/16 17:13	6090062	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Calcium	37.1	2.50	0.155	mg/L	EPA 6020B		5	09/06/16 10:15	09/08/16 17:13	6090062	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Selenium	0.0132	0.0100	0.0010	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:48	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 15:57	6090078	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048
Client ID: FB-2
Date/Time Sampled: 9/1/2016 11:17:00AM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0048-02
Date/Time Received: 9/2/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	22	25	10	mg/L	SM 2540 C	J	1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	0.09	0.25	0.01	mg/L	EPA 300.0	J	1	09/04/16 10:35	09/04/16 21:02	6090086	RLC
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	09/04/16 10:35	09/04/16 21:02	6090086	RLC
Sulfate	0.05	1.0	0.05	mg/L	EPA 300.0	J	1	09/04/16 10:35	09/04/16 21:02	6090086	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Boron	0.0145	0.100	0.0064	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:54	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:00	6090078	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048
Client ID: GWC-6R
Date/Time Sampled: 9/1/2016 11:27:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0048-03
Date/Time Received: 9/2/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	578	25	10	mg/L	SM 2540 C		1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	4.4	0.25	0.01	mg/L	EPA 300.0		1	09/04/16 10:35	09/04/16 21:24	6090086	RLC
Fluoride	0.28	0.30	0.02	mg/L	EPA 300.0	J	1	09/04/16 10:35	09/04/16 21:24	6090086	RLC
Sulfate	360	10	0.51	mg/L	EPA 300.0		10	09/04/16 10:35	09/06/16 22:48	6090086	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Barium	0.0536	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Boron	0.0108	0.100	0.0064	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Calcium	56.8	5.00	0.311	mg/L	EPA 6020B		10	09/06/16 10:15	09/08/16 17:19	6090062	CSW
Chromium	0.0015	0.0100	0.0009	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Selenium	0.0020	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 17:59	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:02	6090078	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048
Client ID: Dup-2
Date/Time Sampled: 9/1/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0048-04
Date/Time Received: 9/2/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	488	25	10	mg/L	SM 2540 C		1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	170	2.5	0.14	mg/L	EPA 300.0		10	09/04/16 10:35	09/06/16 23:09	6090086	RLC
Fluoride	0.16	0.30	0.02	mg/L	EPA 300.0	J	1	09/04/16 10:35	09/04/16 23:34	6090086	RLC
Sulfate	150	10	0.51	mg/L	EPA 300.0		10	09/04/16 10:35	09/06/16 23:09	6090086	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Barium	0.0375	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Boron	3.42	0.500	0.0321	mg/L	EPA 6020B		5	09/06/16 10:15	09/08/16 17:25	6090062	CSW
Cadmium	0.00009	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Calcium	37.3	2.50	0.155	mg/L	EPA 6020B		5	09/06/16 10:15	09/08/16 17:25	6090062	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Selenium	0.0117	0.0100	0.0010	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:05	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:04	6090078	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048
Client ID: GWC-5R
Date/Time Sampled: 9/1/2016 12:59:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0048-05
Date/Time Received: 9/2/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1400	25	10	mg/L	SM 2540 C		1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	6.6	0.25	0.01	mg/L	EPA 300.0		1	09/04/16 10:35	09/04/16 23:56	6090086	RLC
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	09/04/16 10:35	09/04/16 23:56	6090086	RLC
Sulfate	990	50	2.6	mg/L	EPA 300.0		50	09/04/16 10:35	09/06/16 23:29	6090086	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Barium	0.0345	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Beryllium	0.0005	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Boron	0.0191	0.100	0.0064	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Cadmium	0.0005	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Calcium	113	25.0	1.55	mg/L	EPA 6020B		50	09/06/16 10:15	09/08/16 17:30	6090062	CSW
Chromium	0.0021	0.0100	0.0009	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Selenium	0.0212	0.0100	0.0010	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:11	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:07	6090078	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048
Client ID: EQB-2
Date/Time Sampled: 9/1/2016 2:15:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0048-06
Date/Time Received: 9/2/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	18	25	10	mg/L	SM 2540 C	J	1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	0.06	0.25	0.01	mg/L	EPA 300.0	J	1	09/04/16 10:35	09/05/16 00:18	6090086	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/04/16 10:35	09/05/16 00:18	6090086	RLC
Sulfate	0.42	1.0	0.05	mg/L	EPA 300.0	J	1	09/04/16 10:35	09/05/16 00:18	6090086	RLC
Metals, Total											
Antimony	0.0014	0.0030	0.0008	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 18:57	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:09	6090078	MTC

PACE ANALYTICAL SERVICES, INC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090125 - SM 2540 C											
Blank (6090125-BLK1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090125-BS1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	402	25	10	mg/L	400.00		100	84-108			
Duplicate (6090125-DUP1)		**Source: AZI0022-04**				Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	77	25	10	mg/L		190			85	10	QR-03
Duplicate (6090125-DUP2)		**Source: AZI0022-09**				Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	429	25	10	mg/L		406			6	10	

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September 12, 2016

Report No.: AZI0048

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090086 - EPA 300.0											
Blank (6090086-BLK1)						Prepared & Analyzed: 09/04/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6090086-BS1)						Prepared & Analyzed: 09/04/16					
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.010		103	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		102	90-110			
Matrix Spike (6090086-MS1)		**Source: AZI0022-06**				Prepared & Analyzed: 09/04/16					
Chloride	207	0.25	0.01	mg/L	10.010	217	NR	90-110			QM-02
Fluoride	12.0	0.30	0.02	mg/L	10.010	0.04	119	90-110			QM-05
Sulfate	376	1.0	0.05	mg/L	10.010	400	NR	90-110			QM-02
Matrix Spike (6090086-MS2)		**Source: AZI0048-01**				Prepared & Analyzed: 09/04/16					
Chloride	133	0.25	0.01	mg/L	10.010	137	NR	90-110			QM-02
Fluoride	11.7	0.30	0.02	mg/L	10.010	0.15	115	90-110			QM-05
Sulfate	126	1.0	0.05	mg/L	10.010	130	NR	90-110			QM-02
Matrix Spike Dup (6090086-MSD1)		**Source: AZI0022-06**				Prepared & Analyzed: 09/04/16					
Chloride	207	0.25	0.01	mg/L	10.010	217	NR	90-110	0.02	15	QM-02
Fluoride	12.3	0.30	0.02	mg/L	10.010	0.04	123	90-110	3	15	QM-05
Sulfate	376	1.0	0.05	mg/L	10.010	400	NR	90-110	0.08	15	QM-02

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September 12, 2016

Report No.: AZI0048

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090062 - EPA 3005A											
Blank (6090062-BLK1)						Prepared: 09/06/16 Analyzed: 09/07/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6090062-BS1)						Prepared: 09/06/16 Analyzed: 09/07/16					
Antimony	0.111	0.0030	0.0008	mg/L	0.10000		111	80-120			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000		101	80-120			
Barium	0.100	0.0100	0.0004	mg/L	0.10000		100	80-120			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000		104	80-120			
Boron	1.04	0.100	0.0064	mg/L	1.0000		104	80-120			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000		105	80-120			
Calcium	1.00	0.500	0.0311	mg/L	1.0000		100	80-120			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000		104	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Lead	0.100	0.0050	0.0001	mg/L	0.10000		100	80-120			
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000		105	80-120			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000		102	80-120			
Selenium	0.107	0.0100	0.0010	mg/L	0.10000		107	80-120			
Silver	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Thallium	0.101	0.0010	0.0002	mg/L	0.10000		101	80-120			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000		103	80-120			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000		105	80-120			
Lithium	0.106	0.0500	0.0021	mg/L	0.10000		106	80-120			

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090062 - EPA 3005A											
Matrix Spike (6090062-MS1)		**Source: AZI0050-04**				Prepared: 09/06/16 Analyzed: 09/07/16					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	ND	106	75-125			
Arsenic	0.111	0.0050	0.0016	mg/L	0.10000	0.0095	102	75-125			
Barium	0.157	0.0100	0.0004	mg/L	0.10000	0.0666	91	75-125			
Beryllium	0.0934	0.0030	0.00008	mg/L	0.10000	ND	93	75-125			
Boron	1.14	0.100	0.0064	mg/L	1.0000	0.349	79	75-125			
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	9.88	0.500	0.0311	mg/L	1.0000	8.90	97	75-125			
Chromium	0.101	0.0100	0.0009	mg/L	0.10000	ND	101	75-125			
Cobalt	0.0950	0.0100	0.0005	mg/L	0.10000	ND	95	75-125			
Copper	0.0995	0.0050	0.0005	mg/L	0.10000	ND	99	75-125			
Lead	0.0961	0.0050	0.0001	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000	ND	102	75-125			
Nickel	0.104	0.0050	0.0006	mg/L	0.10000	0.0042	99	75-125			
Selenium	0.100	0.0100	0.0010	mg/L	0.10000	ND	100	75-125			
Silver	0.0927	0.0050	0.0005	mg/L	0.10000	ND	93	75-125			
Thallium	0.0952	0.0010	0.0002	mg/L	0.10000	ND	95	75-125			
Vanadium	0.104	0.0100	0.0071	mg/L	0.10000	ND	104	75-125			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000	0.0026	105	75-125			
Lithium	0.102	0.0500	0.0021	mg/L	0.10000	0.0044	98	75-125			
Matrix Spike Dup (6090062-MSD1)		**Source: AZI0050-04**				Prepared: 09/06/16 Analyzed: 09/07/16					
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	ND	107	75-125	0.8	20	
Arsenic	0.111	0.0050	0.0016	mg/L	0.10000	0.0095	102	75-125	0.003	20	
Barium	0.143	0.0100	0.0004	mg/L	0.10000	0.0666	77	75-125	9	20	
Beryllium	0.0897	0.0030	0.00008	mg/L	0.10000	ND	90	75-125	4	20	
Boron	1.05	0.100	0.0064	mg/L	1.0000	0.349	70	75-125	8	20	QM-02
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	1	20	
Calcium	7.88	0.500	0.0311	mg/L	1.0000	8.90	NR	75-125	22	20	QM-02, QR-03
Chromium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125	0.6	20	
Cobalt	0.0984	0.0100	0.0005	mg/L	0.10000	ND	98	75-125	3	20	
Copper	0.0997	0.0050	0.0005	mg/L	0.10000	ND	100	75-125	0.3	20	
Lead	0.0959	0.0050	0.0001	mg/L	0.10000	ND	96	75-125	0.2	20	
Molybdenum	0.0991	0.0100	0.0017	mg/L	0.10000	ND	99	75-125	3	20	
Nickel	0.103	0.0050	0.0006	mg/L	0.10000	0.0042	99	75-125	0.6	20	
Selenium	0.104	0.0100	0.0010	mg/L	0.10000	ND	104	75-125	4	20	
Silver	0.0963	0.0050	0.0005	mg/L	0.10000	ND	96	75-125	4	20	
Thallium	0.0952	0.0010	0.0002	mg/L	0.10000	ND	95	75-125	0.06	20	
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125	0.6	20	
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	0.0026	103	75-125	2	20	

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090062 - EPA 3005A											
Matrix Spike Dup (6090062-MSD1)		**Source: AZI0050-04**				Prepared: 09/06/16 Analyzed: 09/07/16					
Lithium	0.0974	0.0500	0.0021	mg/L	0.10000	0.0044	93	75-125	5	20	
Post Spike (6090062-PS1)		**Source: AZI0050-04**				Prepared: 09/06/16 Analyzed: 09/07/16					
Antimony	99.5			ug/L	100.00	0.100	99	80-120			
Arsenic	112			ug/L	100.00	9.50	102	80-120			
Barium	159			ug/L	100.00	66.6	92	80-120			
Beryllium	91.8			ug/L	100.00	0.0195	92	80-120			
Boron	1120			ug/L	1000.0	349	77	80-120			QM-02
Cadmium	101			ug/L	100.00	-0.0066	101	80-120			
Calcium	9570			ug/L	1000.0	8900	67	80-120			QM-02
Chromium	104			ug/L	100.00	0.586	104	80-120			
Cobalt	100			ug/L	100.00	0.0381	100	80-120			
Copper	101			ug/L	100.00	0.224	101	80-120			
Lead	93.7			ug/L	100.00	0.0558	94	80-120			
Molybdenum	101			ug/L	100.00	0.0984	101	80-120			
Nickel	104			ug/L	100.00	4.21	100	80-120			
Selenium	104			ug/L	100.00	0.394	103	80-120			
Silver	94.0			ug/L	100.00	-0.000050	94	80-120			
Thallium	93.2			ug/L	100.00	0.0002	93	80-120			
Vanadium	107			ug/L	100.00	2.25	104	80-120			
Zinc	104			ug/L	100.00	2.61	102	80-120			
Lithium	97.5			ug/L	100.00	4.38	93	80-120			
Batch 6090078 - EPA 7470A											
Blank (6090078-BLK1)						Prepared & Analyzed: 09/06/16					
Mercury	ND	0.00050	0.000041	mg/L							

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0048

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090078 - EPA 7470A											
LCS (6090078-BS1)						Prepared & Analyzed: 09/06/16					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			
Matrix Spike (6090078-MS1)			**Source: AZI0038-05**			Prepared & Analyzed: 09/06/16					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (6090078-MSD1)			**Source: AZI0038-05**			Prepared & Analyzed: 09/06/16					
Mercury	0.00234	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	3	20	
Post Spike (6090078-PS1)			**Source: AZI0038-05**			Prepared & Analyzed: 09/06/16					
Mercury	1.69			ug/L	1.6667	0.00587	101	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Southern Company Services

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd. SE, B10185
Atlanta, GA 30308

REPORT TO: Joju Abraham
JABRAHAM@southernco.com

CC: MRPADILL@southernco.com
CHMCCORK@southernco.com
LLMILLET@southernco.com

REQUESTED COMPLETION DATE: STANDARD

PO #:

PROJECT NAME/STATE: Yates Gypsum Storage Phase 2 CCR

PROJECT #:

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV EPA 6020/7470 (P)	IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C (P)	Radium 226 & 228 SW-846 9315/9320 (P)	LAB ID NUMBER
					CONTAINER TYPE:		P	P	P	
					PRESERVATION:		3	7	3	
9/1/16	08:49	GW		X	GWC-4R	3	1	1	1	1
9/1/16	11:17	W		X	FB-2	3	1	1	1	2
9/1/16	11:27	GW		X	GWC-6R	3	1	1	1	3
9/1/16	—	GW		X	DUP-2	3	1	1	1	4

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW -	DRINKING WATER	S -	SOIL
WW -	WASTEWATER	SL -	SLUDGE
GW -	GROUNDWATER	SD -	SOLID
SW -	SURFACE WATER	A -	AIR
ST -	STORM WATER	L -	LIQUID
W -	WATER	P -	PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: R. Hilliard
DATE/TIME: 9/1/16

RELINQUISHED BY: [signature] 9/2/16
DATE/TIME:

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: [signature]
DATE/TIME: 09/02/16 0835

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA
Ice: Yes No NA
Temperature: 1°C Min: 1°C Max

Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

file

FOR LAB USE ONLY
LAB #: AZI0048
Entered into LIMS: MR
Tracking #:

CHAIN OF CUSTODY RECORD

Pace Analytical®

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110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
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REPORT TO: Joju Abraham
JABRAHAM@southernco.com

CC: MRPADILL@southernco.com
CHMCCORK@southernco.com
LLMILLET@southernco.com

REQUESTED COMPLETION DATE: STANDARD

PO #:

PROJECT NAME/STATE: Yates Gypsum Storage Phase 2 CCR

PROJECT #:

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV EPA 6020/7470 (P, 3)	IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C (P, 7)	Radium 226 & 228 SW-846 9315/9320 (P, 3)	LAB ID NUMBER
9/1/16	12:59	GW		X	GWC-5R	4	1	1	2	5
9/1/16	14:15	W		X	EQB-2	3	1	1	1	6

CONTAINER TYPE
P - PLASTIC
A - AMBER GLASS
G - CLEAR GLASS
V - VOA VIAL
S - STERILE
O - OTHER

PRESERVATION
1 - HCl, ≤6°C
2 - H_2SO_4, ≤6°C
3 - HNO_3
4 - NaOH, ≤6°C
5 - NaOH/ZnAc, ≤6°C
6 - $Na_2S_2O_3$, ≤6°C
7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER
WW - WASTEWATER
GW - GROUNDWATER
SW - SURFACE WATER
ST - STORM WATER
W - WATER
S - SOIL
SL - SLUDGE
SD - SOLID
A - AIR
L - LIQUID
P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: Charles Watson
DATE/TIME: 9/1/16

RELINQUISHED BY:
DATE/TIME: 9/2/16

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB:
DATE/TIME: 09/02/16 0835

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA
Ice: Yes No NA
Temperature: 1°C Min: 1°C Max:

Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AZI9048
Entered into LIMS: NB
Tracking #:

file

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 9/12/2016 5:37:38PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 09/02/16 08:35

Work Order: AZI0048
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 6 **#Containers:** 19

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 04, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195132

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on September 06, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195132

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195132

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195131001	**GWC-4R**	Water	09/01/16 08:49	09/06/16 08:50
30195132002	**FB-2**	Water	09/01/16 11:17	09/06/16 08:50
30195132003	**GWC-6R**	Water	09/01/16 11:27	09/06/16 08:50
30195132004	**DUP-2**	Water	09/01/16 00:01	09/06/16 08:50

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195132

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195131001	**GWC-4R**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195132002	**FB-2**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195132003	**GWC-6R**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195132004	**DUP-2**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195132

Sample: GWC-4R **Lab ID: 30195131001** Collected: 09/01/16 08:49 Received: 09/06/16 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0664 ± 0.152 (0.360) C:77% T:NA**	pCi/L	09/28/16 11:35	13982-63-3	
Radium-228	EPA 9320	**1.51 ± 0.556 (0.831) C:80% T:79%**	pCi/L	09/23/16 22:07	15262-20-1	
Total Radium	Total Radium Calculation	**1.58 ± 0.708 (1.19)**	pCi/L	10/04/16 15:39	7440-14-4	

Sample: FB-2 **Lab ID: 30195132002** Collected: 09/01/16 11:17 Received: 09/06/16 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.00531 ± 0.118 (0.319) C:88% T:NA**	pCi/L	09/28/16 11:35	13982-63-3	
Radium-228	EPA 9320	**0.675 ± 0.434 (0.800) C:72% T:70%**	pCi/L	09/28/16 12:22	15262-20-1	
Total Radium	Total Radium Calculation	**0.680 ± 0.552 (1.12)**	pCi/L	10/04/16 15:39	7440-14-4	

Sample: GWC-6R **Lab ID: 30195132003** Collected: 09/01/16 11:27 Received: 09/06/16 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.146 ± 0.163 (0.331) C:84% T:NA**	pCi/L	09/28/16 11:35	13982-63-3	
Radium-228	EPA 9320	**1.27 ± 0.555 (0.909) C:71% T:80%**	pCi/L	09/23/16 22:34	15262-20-1	
Total Radium	Total Radium Calculation	**1.42 ± 0.718 (1.24)**	pCi/L	10/04/16 15:39	7440-14-4	

Sample: DUP-2 **Lab ID: 30195132004** Collected: 09/01/16 00:01 Received: 09/06/16 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0964 ± 0.130 (0.269) C:81% T:NA**	pCi/L	09/28/16 11:35	13982-63-3	
Radium-228	EPA 9320	**0.576 ± 0.506 (1.03) C:71% T:76%**	pCi/L	09/23/16 22:34	15262-20-1	
Total Radium	Total Radium Calculation	**0.672 ± 0.636 (1.30)**	pCi/L	10/04/16 15:39	7440-14-4	

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195132

QC Batch: 232981 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195131001, 30195132002, 30195132003, 30195132004

METHOD BLANK: 1141806 Matrix: Water
Associated Lab Samples: 30195131001, 30195132002, 30195132003, 30195132004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0211 ± 0.0919 (0.290) C:86% T:NA	pCi/L	09/28/16 11:34	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195132

QC Batch: 232987 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195131001, 30195132002, 30195132003, 30195132004

METHOD BLANK: 1141823 Matrix: Water
Associated Lab Samples: 30195131001, 30195132002, 30195132003, 30195132004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.450 ± 0.440 (0.907) C:80% T:77%	pCi/L	09/23/16 22:33	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195132

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Southern Company Services

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd. SE, B10185
Atlanta, GA 30308

REPORT TO: Joju Abraham
JABRAHAM@southernco.com

CC: MRPADILL@southernco.com
CHMCCORK@southernco.com
LLMILLET@southernco.com

REQUESTED COMPLETION DATE: STANDARD

PO #:

PROJECT NAME/STATE: Yates Gypsum Storage Phase 2 CCR

PROJECT #:

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV EPA 6020/7470	IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C	Radium 226 & 228 SW-846 9315/9320	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE:		P	P	P		
					PRESERVATION:		3	7	3		
9/1/16	08:49	GW		X	GWC-4R	3	1	1	1		001
9/1/16	11:17	W		X	FB-2	3	1	1	1		002
9/1/16	11:27	GW		X	GWC-6R	3	1	1	1		003
9/1/16	—	GW		X	DUP-2	3	1	1	1		004

WO#:30195132

30195132

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

SAMPLED BY AND TITLE: R. Hilliard
DATE/TIME: 9/1/16

RELINQUISHED BY: [signature] 9/2/16
DATE/TIME: 9/2/16 0655

RECEIVED BY: [signature]
DATE/TIME: 9/2/16 6:55

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: Ashley Rose/Pace
DATE/TIME: 9-6-16/0850

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: (Yes) No NA
Ice: Yes (No) NA
Temperature: Min: Max:

Custody Seal: Intact: Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #:
Entered into LIMS:
Tracking #:

file

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA Project # 30195132

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 6812 5098 8849

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 097R 9-6-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. pHL2
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed 097R Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: 097R Date: 9-6-16

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-226
Analyst:	WRR
Date:	9/26/2016
Worklist:	31362
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1141806
MB concentration:	-0.021
M/B Counting Uncertainty:	0.092
MB MDC:	0.290
MB Numerical Performance Indicator:	-0.45
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31362	LCSD31362
Count Date:	9/28/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.504	
Target Conc. (pCi/L, g, F):	8.870	
Uncertainty (Calculated):	0.417	
Result (pCi/L, g, F):	7.482	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.849	
Numerical Performance Indicator:	-2.87	
Percent Recovery:	84.36%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195128008	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195128008DUP	
Sample Result (pCi/L, g, F):	0.625	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.301	
Sample Duplicate Result (pCi/L, g, F):	0.359	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.228	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	1.384	30195128008
Duplicate RPD:	54.21%	30195128008DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	9/15/2016
Worklist:	31367
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1141823
MB concentration:	0.450
M/B Counting Uncertainty:	0.432
MB MDC:	0.907
MB Numerical Performance Indicator:	2.04
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)? LCS31367	N LCSD31367
Count Date:	9/23/2016	
Spike I.D.:	16-025	
Spike Concentration (pCi/mL):	25.595	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.813	
Target Conc. (pCi/L, g, F):	6.293	
Uncertainty (Calculated):	0.453	
Result (pCi/L, g, F):	7.559	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.863	
Numerical Performance Indicator:	2.55	
Percent Recovery:	120.12%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195128008	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195128008DUP	
Sample Result (pCi/L, g, F):	1.816	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.475	
Sample Duplicate Result (pCi/L, g, F):	1.232	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.428	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	1.791	30195128008
Duplicate RPD:	38.33%	30195128008DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 04, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195133

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on September 06, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195133

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195133

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195133001	**GWC-5R**	Water	09/01/16 12:59	09/06/16 08:50
30195133002	**EQB-2**	Water	09/01/16 14:15	09/06/16 08:50

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SAMPLE ANALYTE COUNT

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195133

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195133001	**GWC-5R**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195133002	**EQB-2**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195133

Sample: GWC-5R **Lab ID: 30195133001** Collected: 09/01/16 12:59 Received: 09/06/16 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.183 ± 0.150 (0.256) C:90% T:NA**	pCi/L	09/28/16 11:35	13982-63-3	
Radium-228	EPA 9320	**1.29 ± 0.594 (1.02) C:73% T:78%**	pCi/L	09/23/16 22:08	15262-20-1	
Total Radium	Total Radium Calculation	**1.47 ± 0.744 (1.28)**	pCi/L	10/04/16 15:39	7440-14-4	

Sample: EQB-2 **Lab ID: 30195133002** Collected: 09/01/16 14:15 Received: 09/06/16 08:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0176 ± 0.143 (0.395) C:84% T:NA**	pCi/L	09/28/16 11:36	13982-63-3	
Radium-228	EPA 9320	**1.28 ± 0.546 (0.863) C:73% T:68%**	pCi/L	09/28/16 12:22	15262-20-1	
Total Radium	Total Radium Calculation	**1.28 ± 0.689 (1.26)**	pCi/L	10/04/16 15:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195133

QC Batch: 232981 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195133001, 30195133002

METHOD BLANK: 1141806 Matrix: Water
Associated Lab Samples: 30195133001, 30195133002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0211 ± 0.0919 (0.290) C:86% T:NA	pCi/L	09/28/16 11:34	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195133

QC Batch: 232987 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195133001, 30195133002

METHOD BLANK: 1141823 Matrix: Water
Associated Lab Samples: 30195133001, 30195133002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.450 ± 0.440 (0.907) C:80% T:77%	pCi/L	09/23/16 22:33	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Yates Gypsum Storage Phase 2
Pace Project No.: 30195133

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Southern Company Services

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd. SE, B10185
Atlanta, GA 30308

REPORT TO: Joju Abraham
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REQUESTED COMPLETION DATE: STANDARD

PO #:

PROJECT NAME/STATE: Yates Gypsum Storage Phase 2 CCR

PROJECT #:

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV EPA 6020/7470	IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C	Radium 226 & 228 SW-846 9315/9320	LAB ID NUMBER
					CONTAINER TYPE:		P	P	P	
					PRESERVATION:		3	7	3	
9/1/16	12:59	GW		X	GWC-5R	4	1	1	2	001
9/1/16	14:15	W		X	EQB-2	3	1	1	1	002

CONTAINER TYPE
P - PLASTIC
A - AMBER GLASS
G - CLEAR GLASS
V - VOA VIAL
S - STERILE
O - OTHER

PRESERVATION
1 - HCl, ≤6°C
2 - H_2SO_4, ≤6°C
3 - HNO_3
4 - NaOH, ≤6°C
5 - NaOH/ZnAc, ≤6°C
6 - $Na_2S_2O_3$, ≤6°C
7 - ≤6°C not frozen

*MATRIX CODES:
DW - DRINKING WATER
WW - WASTEWATER
GW - GROUNDWATER
SW - SURFACE WATER
ST - STORM WATER
W - WATER
S - SOIL
SL - SLUDGE
SD - SOLID
A - AIR
L - LIQUID
P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

WO#:30195133

30195133

SAMPLED BY AND TITLE: Charles Watson
DATE/TIME: 9/1/16

RECEIVED BY: [illegible]
DATE/TIME: 9/2/16 0:55

RELINQUISHED BY:
DATE/TIME: 9/2/16 0655

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB: Donnie Rose/Pace
DATE/TIME: 9-6-16/0850

FOR LAB USE ONLY
LAB #:
Entered into LIMS:
Tracking #:

SAMPLE SHIPPED VIA:
UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA
Ice: Yes No NA
Temperature: Min: Max:

Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

file

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA Project # 30195133

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 6812 5098 8849

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: AMR 9-6-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. pH<2
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed AMR Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: AMR Date: 9-6-16

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	WRR
Date:	9/26/2016
Worklist:	31362
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1141806
MB concentration:	-0.021
M/B Counting Uncertainty:	0.092
MB MDC:	0.290
MB Numerical Performance Indicator:	-0.45
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31362	LCSD31362
Count Date:	9/28/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.504	
Target Conc. (pCi/L, g, F):	8.870	
Uncertainty (Calculated):	0.417	
Result (pCi/L, g, F):	7.482	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.849	
Numerical Performance Indicator:	-2.87	
Percent Recovery:	84.36%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195128008	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195128008DUP	
Sample Result (pCi/L, g, F):	0.625	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.301	
Sample Duplicate Result (pCi/L, g, F):	0.359	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.228	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	1.384	30195128008
Duplicate RPD:	54.21%	30195128008DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

10/4/16

Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: JLW
Date: 9/15/2016
Worklist: 31367
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1141823
MB concentration:	0.450
M/B Counting Uncertainty:	0.432
MB MDC:	0.907
MB Numerical Performance Indicator:	2.04
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31367	LCSD31367
Count Date:	9/23/2016	
Spike I.D.:	16-025	
Spike Concentration (pCi/mL):	25.595	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.813	
Target Conc. (pCi/L, g, F):	6.293	
Uncertainty (Calculated):	0.453	
Result (pCi/L, g, F):	7.559	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.863	
Numerical Performance Indicator:	2.55	
Percent Recovery:	120.12%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195128008	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195128008DUP	
Sample Result (pCi/L, g, F):	1.816	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.475	
Sample Duplicate Result (pCi/L, g, F):	1.232	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.428	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	1.791	30195128008
Duplicate RPD:	38.33%	30195128008DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Product Name: Low-Flow System

Date: 2016-08-31 10:48:44

Project Information:		Pump Information:	
Operator Name	R. Hilliard	Pump Model/Type	bladder
Company Name	AECOM	Tubing Type	polyethylene
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	GWA-2	Tubing Length	52 ft
Latitude	33º 27' 46.37"		
Longitude	-84º -53' -54.87"		
Sonde SN	463068		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	5 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.422098 L
Well Total Depth	52.16 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	17.04 in
Depth to Water	38.46 ft	Total Volume Pumped	9.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	10:27:03	4200.42	20.88	6.31	168.52	0.16	39.83	0.22	29.48
Last 5	10:32:03	4500.42	20.88	6.32	168.38	0.07	39.84	0.44	29.62
Last 5	10:37:03	4800.38	20.85	6.31	168.27	0.05	39.85	0.24	30.26
Last 5	10:42:03	5100.36	20.87	6.32	168.14	0.09	39.87	0.22	29.64
Last 5	10:47:03	5400.36	20.94	6.32	168.15	0.05	39.88	0.22	29.87
Variance 0			-0.03	-0.01	-0.10			-0.20	0.65
Variance 1			0.02	0.01	-0.13			-0.02	-0.62
Variance 2			0.07	-0.00	0.01			-0.00	0.23

Notes

Clear, breezy, dry, 75F

Grab Samples

GWA-2

Sample Time: 10:53

Product Name: Low-Flow System

Date: 2016-08-31 11:38:44

Project Information:		Pump Information:	
Operator Name	Charles Watson	Pump Model/Type	bladder
Company Name	AECOM	Tubing Type	poly
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	GWC-1R	Tubing Length	45 ft
Latitude	33º 28' 0.82"		
Longitude	-84º -53' -56.12"		
Sonde SN	449471		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWC-1R	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.390854 L
Well Total Depth	36.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	21.24 in
Depth to Water	25.78 ft	Total Volume Pumped	21.45 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:14:42	5099.98	18.48	5.36	796.07	6.94	27.55	6.85	159.56
Last 5	11:19:42	5399.98	18.46	5.36	793.66	5.73	27.55	6.87	159.82
Last 5	11:24:42	5699.98	18.53	5.37	791.85	4.33	27.54	6.90	159.94
Last 5	11:29:42	5999.98	18.57	5.37	788.47	3.81	27.55	6.86	160.83
Last 5	11:34:42	6299.98	18.61	5.37	786.97	2.85	27.55	6.85	161.20
Variance 0			0.07	0.00	-1.82			0.03	0.12
Variance 1			0.05	0.00	-3.38			-0.04	0.90
Variance 2			0.04	-0.00	-1.51			-0.01	0.36

Notes

Sunny, 85F, light breeze. Constant construction traffic on south side of well. Static WL <1' above top of screen -- 3 well volume purge
No rate changes. Sampling started at 11:38.

Grab Samples

GWC-1R

Sample time 11:38

Product Name: Low-Flow System

Date: 2016-08-31 14:16:44

Project Information:		Pump Information:	
Operator Name	R. Hilliard	Pump Model/Type	bladder
Company Name	AECOM	Tubing Type	polyethylene
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	GWC-2R	Tubing Length	45 ft
Latitude	33º 27' 46.37"		
Longitude	-84º -53' -54.87"		
Sonde SN	463068		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	GWC-2R	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.390854 L
Well Total Depth	43.80 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	29.65 ft	Total Volume Pumped	0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	13:55:01	3300.22	20.53	5.56	309.55	5.39	29.84	4.77	62.52
Last 5	14:00:01	3600.22	20.41	5.56	314.80	5.25	29.84	4.78	62.26
Last 5	14:05:01	3900.15	20.52	5.55	320.07	4.25	29.84	4.78	61.64
Last 5	14:10:01	4200.16	20.76	5.54	326.15	3.34	29.84	4.82	61.73
Last 5	14:15:01	4500.16	20.93	5.54	327.09	3.47	29.84	4.76	62.09
Variance 0			0.11	-0.01	5.27			-0.01	-0.62
Variance 1			0.24	-0.00	6.08			0.05	0.09
Variance 2			0.17	-0.01	0.94			-0.06	0.36

Notes

Clear, breezy, 85F

Active excavation and grading in gypsum storage area.

Grab Samples

GWC-2R

Sample Time: 14:20

Product Name: Low-Flow System

Date: 2016-08-31 16:03:24

Project Information:		Pump Information:	
Operator Name	Charles Watson	Pump Model/Type	bladder
Company Name	AECOM	Tubing Type	poly
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	GWC-3R	Tubing Length	45 ft
Latitude	33º 27' 58.58"		
Longitude	-84º -54' -1.28"		
Sonde SN	449471		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	34 ft

Well Information:		Pumping Information:	
Well ID	GWC-3R	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.390854 L
Well Total Depth	38.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.16 in
Depth to Water	30.33 ft	Total Volume Pumped	34.15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	15:38:23	6899.90	20.81	5.58	230.88	6.07	30.76	8.44	190.73
Last 5	15:43:23	7199.89	20.64	5.59	229.36	6.40	30.76	8.42	191.70
Last 5	15:48:23	7499.89	20.53	5.61	233.25	4.69	30.76	8.52	190.42
Last 5	15:53:23	7799.89	20.35	5.61	232.99	4.59	30.76	8.51	188.48
Last 5	15:58:23	8099.89	20.50	5.60	231.04	4.33	30.76	8.44	184.84
Variance 0			-0.11	0.02	3.89			0.10	-1.28
Variance 1			-0.18	-0.00	-0.26			-0.01	-1.94
Variance 2			0.15	-0.01	-1.96			-0.07	-3.64

Notes

Sunny 92F. Construction traffic constant on road directly next to GWC-3R.
No rate changes. Sample time 16:01. Volume purge--water level less than 1' above top of screen.

Grab Samples

GWC-3R

Sample time 16:01

Product Name: Low-Flow System

Date: 2016-09-01 08:46:09

Project Information:		Pump Information:	
Operator Name	R. Hilliard	Pump Model/Type	peristaltic
Company Name	AECOM	Tubing Type	polyethylene
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	GWC-4R	Tubing Length	35 ft
Latitude	33º 27' 45.72"		
Longitude	-84º -53' -55.94"		
Sonde SN	463068		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	25 ft

Well Information:		Pumping Information:	
Well ID	GWC-4R	Final Pumping Rate	140 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	31.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3 in
Depth to Water	18.11 ft	Total Volume Pumped	4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	08:22:03	900.45	20.57	5.60	1101.38	0.81	18.37	0.32	45.62
Last 5	08:27:03	1200.45	20.62	5.62	1037.57	0.88	18.36	0.39	41.51
Last 5	08:32:03	1500.45	20.61	5.63	1002.34	0.69	18.36	0.44	41.36
Last 5	08:37:03	1800.39	20.84	5.64	1001.05	1.44	18.35	0.50	40.28
Last 5	08:42:03	2100.38	20.93	5.64	1002.01	1.08	18.36	0.53	39.13
Variance 0			-0.00	0.01	-35.23			0.05	-0.15
Variance 1			0.22	0.01	-1.29			0.06	-1.08
Variance 2			0.09	0.00	0.96			0.03	-1.14

Notes

Clear, 75F, light breeze

Well located on shoulder of access road used by dump trucks. 08:13 - increased flow rate from 0.11 LPM to 0.14 LPM.

Grab Samples

GWC-4R

Sample Time: 08:49

DUP-2

QC: field duplicate

Product Name: Low-Flow System

Date: 2016-09-01 13:03:34

Project Information:		Pump Information:	
Operator Name	Charles Watson	Pump Model/Type	bladder
Company Name	AECOM	Tubing Type	poly
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	GWC-5R	Tubing Length	50 ft
Latitude	33º 27' 56.55"		
Longitude	-84º -53' -59.07"		
Sonde SN	449471		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	37.5 ft

Well Information:		Pumping Information:	
Well ID	GWC-5R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.4131711 L
Well Total Depth	42.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	15.48 in
Depth to Water	32.65 ft	Total Volume Pumped	33.45 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	12:35:45	12601.92	21.11	5.18	1619.54	3.03	33.94	5.70	179.91
Last 5	12:40:45	12901.92	21.24	5.18	1620.20	3.68	33.94	5.70	179.01
Last 5	12:45:45	13201.92	21.11	5.18	1618.28	3.14	33.94	5.75	178.15
Last 5	12:50:45	13501.92	21.33	5.18	1617.74	3.04	33.94	5.65	178.34
Last 5	12:55:45	13801.92	20.84	5.18	1610.59	2.65	33.94	5.71	177.74
Variance 0			-0.14	0.00	-1.92			0.05	-0.86
Variance 1			0.22	0.00	-0.54			-0.10	0.19
Variance 2			-0.49	0.00	-7.14			0.05	-0.60

Notes

Sunny, clear, 72F. Constant construction traffic on road.
Rate change at 9:35 0.1 to 0.15L/min. Wind blowing at 5-10mph kicking up dust. Sampling started at 12:59. EQB-2 collected of bladder. Lab QC collected for radiological.

Product Name: Low-Flow System

Date: 2016-09-01 11:23:38

Project Information:		Pump Information:	
Operator Name	R. Hilliard	Pump Model/Type	bladder
Company Name	AECOM	Tubing Type	polyethylene
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	GWC-6R	Tubing Length	55 ft
Latitude	33º 27' 45.72"		
Longitude	-84º -53' -55.94"		
Sonde SN	463068		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	46 ft

Well Information:		Pumping Information:	
Well ID	GWC-6R	Final Pumping Rate	140 mL/min
Well diameter	2 in	Total System Volume	0.4354883 L
Well Total Depth	51.91 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.44 in
Depth to Water	37.53 ft	Total Volume Pumped	4.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 20
Last 5	11:00:01	900.62	19.77	6.04	750.44	0.12	37.89	6.25	76.11
Last 5	11:05:01	1200.62	19.72	6.02	757.83	0.11	37.89	6.19	75.92
Last 5	11:10:01	1500.62	19.68	6.00	761.45	0.02	37.90	6.12	76.59
Last 5	11:15:01	1800.58	19.86	6.00	758.41	0.06	37.90	6.02	75.77
Last 5	11:20:01	2100.58	19.63	5.99	751.83	0.13	37.90	5.94	78.08
Variance 0			-0.04	-0.01	3.61			-0.07	0.67
Variance 1			0.18	-0.01	-3.03			-0.10	-0.82
Variance 2			-0.22	-0.00	-6.58			-0.08	2.31

Notes

Clear, breezy, 85F. Well is located approximately 100 feet from active excavation and grading, and down wind.

Grab Samples

FB-2

Sample Time: 11:17

GWC-6R

Sample Time: 11:27

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZK0850
December 08, 2016
Project: CCR Event
Project #:Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-2	AZK0850-01	Ground Water	11/28/16 12:35	11/29/16 16:45
GWC-2R	AZK0850-02	Ground Water	11/28/16 15:40	11/29/16 16:45
FB-1-11-29-16	AZK0850-03	Water	11/29/16 10:35	11/29/16 16:45
GWC-1R	AZK0850-04	Ground Water	11/29/16 12:25	11/29/16 16:45
GWC-6R	AZK0850-05	Ground Water	11/29/16 13:50	11/29/16 16:45
EB-1-11-29-16	AZK0850-06	Water	11/29/16 14:30	11/29/16 16:45

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

Report No.: AZK0850
Client ID: GWA-2
Date/Time Sampled: 11/28/2016 12:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0850-01
Date/Time Received: 11/29/2016 4:45:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	102	25	10	mg/L	SM 2540 C		1	11/30/16 11:01	11/30/16 11:01	6110705	JPT
Inorganic Anions											
Chloride	4.2	0.25	0.01	mg/L	EPA 300.0		1	11/30/16 08:54	11/30/16 11:01	6110695	RLC
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 11:01	6110695	RLC
Sulfate	36	1.0	0.05	mg/L	EPA 300.0		1	11/30/16 08:54	11/30/16 11:01	6110695	RLC
Metals, Total											
Antimony	0.0014	0.0030	0.0008	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Barium	0.0529	0.0100	0.0004	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Boron	0.0095	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Calcium	9.47	2.50	0.155	mg/L	EPA 6020B	B-01	5	12/02/16 08:55	12/06/16 11:44	6120022	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Cobalt	0.0036	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:27	6120022	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/02/16 09:20	12/02/16 12:51	6120036	MTC

PACE ANALYTICAL SERVICES, LLC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

Report No.: AZK0850
Client ID: GWC-2R
Date/Time Sampled: 11/28/2016 3:40:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0850-02
Date/Time Received: 11/29/2016 4:45:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	177	25	10	mg/L	SM 2540 C		1	11/30/16 11:01	11/30/16 11:01	6110705	JPT
Inorganic Anions											
Chloride	6.7	0.25	0.01	mg/L	EPA 300.0		1	11/30/16 08:54	11/30/16 11:22	6110695	RLC
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 11:22	6110695	RLC
Sulfate	120	10	0.51	mg/L	EPA 300.0		10	11/30/16 08:54	11/30/16 18:15	6110695	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Barium	0.0562	0.0100	0.0004	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Boron	0.0206	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Calcium	17.7	5.00	0.311	mg/L	EPA 6020B	B-01	10	12/02/16 08:55	12/06/16 11:49	6120022	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Cobalt	0.0189	0.0100	0.0005	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Selenium	0.0019	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:33	6120022	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/02/16 09:20	12/02/16 12:53	6120036	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

Report No.: AZK0850
Client ID: FB-1-11-29-16
Date/Time Sampled: 11/29/2016 10:35:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZK0850-03
Date/Time Received: 11/29/2016 4:45:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	11/30/16 11:01	11/30/16 11:01	6110705	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 12:23	6110695	RLC
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 12:23	6110695	RLC
Sulfate	0.06	1.0	0.05	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 12:23	6110695	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Beryllium	0.0006	0.0030	0.00008	mg/L	EPA 6020B	B-01, J	1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:39	6120022	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/02/16 09:20	12/02/16 13:00	6120036	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

Report No.: AZK0850
Client ID: GWC-1R
Date/Time Sampled: 11/29/2016 12:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0850-04
Date/Time Received: 11/29/2016 4:45:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	594	25	10	mg/L	SM 2540 C		1	11/30/16 11:01	11/30/16 11:01	6110705	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.01	mg/L	EPA 300.0		1	11/30/16 08:54	11/30/16 12:44	6110695	RLC
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 12:44	6110695	RLC
Sulfate	450	10	0.51	mg/L	EPA 300.0		10	11/30/16 08:54	11/30/16 18:35	6110695	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Barium	0.0754	0.0100	0.0004	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Boron	0.0149	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Cadmium	0.00008	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Calcium	70.6	25.0	1.55	mg/L	EPA 6020B	B-01	50	12/02/16 08:55	12/06/16 11:55	6120022	CSW
Chromium	0.0009	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Selenium	0.0033	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:44	6120022	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/02/16 09:20	12/02/16 13:03	6120036	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

Report No.: AZK0850
Client ID: GWC-6R
Date/Time Sampled: 11/29/2016 1:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0850-05
Date/Time Received: 11/29/2016 4:45:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	455	25	10	mg/L	SM 2540 C		1	11/30/16 11:01	11/30/16 11:01	6110705	JPT
Inorganic Anions											
Chloride	4.8	0.25	0.01	mg/L	EPA 300.0		1	11/30/16 08:54	11/30/16 13:05	6110695	RLC
Fluoride	0.05	0.30	0.02	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 13:05	6110695	RLC
Sulfate	320	20	1.0	mg/L	EPA 300.0		20	11/30/16 08:54	12/06/16 11:43	6110695	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Barium	0.0459	0.0100	0.0004	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Calcium	50.7	5.00	0.311	mg/L	EPA 6020B	B-01	10	12/02/16 08:55	12/06/16 12:00	6120022	CSW
Chromium	0.0014	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Selenium	0.0017	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 14:50	6120022	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/02/16 09:20	12/02/16 13:05	6120036	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

Report No.: AZK0850
Client ID: EB-1-11-29-16
Date/Time Sampled: 11/29/2016 2:30:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZK0850-06
Date/Time Received: 11/29/2016 4:45:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	11/30/16 11:01	11/30/16 11:01	6110705	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 13:25	6110695	RLC
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 13:25	6110695	RLC
Sulfate	0.14	1.0	0.05	mg/L	EPA 300.0	J	1	11/30/16 08:54	11/30/16 13:25	6110695	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/02/16 08:55	12/05/16 15:10	6120022	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/02/16 09:20	12/02/16 13:08	6120036	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

Report No.: AZK0850

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110705 - SM 2540 C											
Blank (6110705-BLK1)						Prepared & Analyzed: 11/30/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6110705-BS1)						Prepared & Analyzed: 11/30/16					
Total Dissolved Solids	371	25	10	mg/L	400.00		93	84-108			
Duplicate (6110705-DUP1)		**Source: AZK0782-01**				Prepared & Analyzed: 11/30/16					
Total Dissolved Solids	118	25	10	mg/L		116			2	10	
Duplicate (6110705-DUP2)		**Source: AZK0850-03**				Prepared & Analyzed: 11/30/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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December 08, 2016

Report No.: AZK0850

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110695 - EPA 300.0											
Blank (6110695-BLK1)						Prepared & Analyzed: 11/30/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6110695-BS1)						Prepared & Analyzed: 11/30/16					
Chloride	10.4	0.25	0.01	mg/L	10.010		104	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.020		101	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.020		102	90-110			
Matrix Spike (6110695-MS1)		**Source: AZK0850-02**				Prepared & Analyzed: 11/30/16					
Chloride	16.8	0.25	0.01	mg/L	10.010	6.68	101	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.020	0.03	104	90-110			
Sulfate	111	1.0	0.05	mg/L	10.020	113	NR	90-110			QM-02
Matrix Spike (6110695-MS2)		**Source: AZK0855-01**				Prepared & Analyzed: 11/30/16					
Chloride	13.1	0.25	0.01	mg/L	10.010	2.56	105	90-110			
Fluoride	10.7	0.30	0.02	mg/L	10.020	0.11	106	90-110			
Sulfate	15.1	1.0	0.05	mg/L	10.020	5.18	99	90-110			
Matrix Spike Dup (6110695-MSD1)		**Source: AZK0850-02**				Prepared & Analyzed: 11/30/16					
Chloride	16.9	0.25	0.01	mg/L	10.010	6.68	102	90-110	0.7	15	
Fluoride	10.6	0.30	0.02	mg/L	10.020	0.03	106	90-110	2	15	
Sulfate	111	1.0	0.05	mg/L	10.020	113	NR	90-110	0.3	15	QM-02

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December 08, 2016

Report No.: AZK0850

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120022 - EPA 3005A											
Blank (6120022-BLK1)						Prepared: 12/02/16 Analyzed: 12/05/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	0.0002	0.0030	0.00008	mg/L							J
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	0.0350	0.500	0.0311	mg/L							J
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	0.0008	0.0050	0.0001	mg/L							J
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	0.0023	0.0100	0.0021	mg/L							J
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6120022-BS1)						Prepared: 12/02/16 Analyzed: 12/05/16					
Antimony	0.103	0.0030	0.0008	mg/L	0.10000		103	80-120			
Arsenic	0.0985	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.0983	0.0100	0.0004	mg/L	0.10000		98	80-120			
Beryllium	0.100	0.0030	0.00008	mg/L	0.10000		100	80-120			
Boron	1.00	0.0400	0.0064	mg/L	1.0000		100	80-120			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000		101	80-120			
Calcium	1.00	0.500	0.0311	mg/L	1.0000		100	80-120			
Chromium	0.0977	0.0100	0.0009	mg/L	0.10000		98	80-120			
Cobalt	0.0950	0.0100	0.0005	mg/L	0.10000		95	80-120			
Copper	0.0985	0.0250	0.0005	mg/L	0.10000		99	80-120			
Lead	0.0978	0.0050	0.0001	mg/L	0.10000		98	80-120			
Molybdenum	0.0996	0.0100	0.0017	mg/L	0.10000		100	80-120			
Nickel	0.0995	0.0100	0.0006	mg/L	0.10000		99	80-120			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000		102	80-120			
Silver	0.0999	0.0100	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.0979	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.0977	0.0100	0.0071	mg/L	0.10000		98	80-120			
Zinc	0.103	0.0100	0.0021	mg/L	0.10000		103	80-120			
Lithium	0.101	0.0500	0.0021	mg/L	0.10000		101	80-120			

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

Report No.: AZK0850

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120022 - EPA 3005A											
Matrix Spike (6120022-MS1)		**Source: AZK0850-01**			Prepared: 12/02/16 Analyzed: 12/05/16						
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	0.0014	105	75-125			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125			
Barium	0.150	0.0500	0.0022	mg/L	0.10000	0.0529	98	75-125			
Beryllium	0.0942	0.0030	0.00008	mg/L	0.10000	ND	94	75-125			
Boron	0.948	0.0400	0.0064	mg/L	1.0000	0.0095	94	75-125			
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000	ND	100	75-125			
Calcium	10.8	2.50	0.155	mg/L	1.0000	9.47	134	75-125			QM-02
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	0.0036	99	75-125			
Copper	0.100	0.0250	0.0005	mg/L	0.10000	0.0010	99	75-125			
Lead	0.0987	0.0050	0.0001	mg/L	0.10000	ND	99	75-125			
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000	ND	104	75-125			
Nickel	0.106	0.0100	0.0006	mg/L	0.10000	0.0039	102	75-125			
Selenium	0.105	0.0100	0.0010	mg/L	0.10000	ND	105	75-125			
Silver	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125			
Thallium	0.0997	0.0010	0.0002	mg/L	0.10000	ND	100	75-125			
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125			
Zinc	0.103	0.0100	0.0021	mg/L	0.10000	0.0028	100	75-125			
Lithium	0.0962	0.0500	0.0021	mg/L	0.10000	ND	96	75-125			
Matrix Spike Dup (6120022-MSD1)		**Source: AZK0850-01**			Prepared: 12/02/16 Analyzed: 12/05/16						
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	0.0014	102	75-125	3	20	
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125	0.2	20	
Barium	0.148	0.0500	0.0022	mg/L	0.10000	0.0529	95	75-125	2	20	
Beryllium	0.0888	0.0030	0.00008	mg/L	0.10000	ND	89	75-125	6	20	
Boron	0.915	0.0400	0.0064	mg/L	1.0000	0.0095	91	75-125	3	20	
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	1	20	
Calcium	10.7	2.50	0.155	mg/L	1.0000	9.47	121	75-125	1	20	
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125	0.08	20	
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	0.0036	98	75-125	0.5	20	
Copper	0.103	0.0250	0.0005	mg/L	0.10000	0.0010	102	75-125	3	20	
Lead	0.100	0.0050	0.0001	mg/L	0.10000	ND	100	75-125	1	20	
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000	ND	102	75-125	2	20	
Nickel	0.105	0.0100	0.0006	mg/L	0.10000	0.0039	101	75-125	0.6	20	
Selenium	0.102	0.0100	0.0010	mg/L	0.10000	ND	102	75-125	3	20	
Silver	0.0995	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	1	20	
Thallium	0.101	0.0010	0.0002	mg/L	0.10000	ND	101	75-125	1	20	
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000	ND	105	75-125	1	20	
Zinc	0.104	0.0100	0.0021	mg/L	0.10000	0.0028	101	75-125	0.9	20	
Lithium	0.0897	0.0500	0.0021	mg/L	0.10000	ND	90	75-125	7	20	

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 08, 2016

Report No.: AZK0850

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120022 - EPA 3005A											
Post Spike (6120022-PS1)			**Source: AZK0850-01**			Prepared: 12/02/16 Analyzed: 12/05/16					
Antimony	97.8			ug/L	100.00	1.41	96	80-120			
Arsenic	99.3			ug/L	100.00	0.0639	99	80-120			
Barium	150			ug/L	100.00	52.9	97	80-120			
Beryllium	84.9			ug/L	100.00	-1.84	85	80-120			
Boron	927			ug/L	1000.0	9.46	92	80-120			
Cadmium	99.8			ug/L	100.00	0.0137	100	80-120			
Calcium	10700			ug/L	1000.0	9470	121	80-120			QM-02
Chromium	101			ug/L	100.00	0.145	101	80-120			
Cobalt	99.6			ug/L	100.00	3.64	96	80-120			
Copper	99.3			ug/L	100.00	1.03	98	80-120			
Lead	100			ug/L	100.00	-0.502	100	80-120			
Molybdenum	101			ug/L	100.00	0.757	101	80-120			
Nickel	101			ug/L	100.00	3.92	97	80-120			
Selenium	105			ug/L	100.00	-0.0591	105	80-120			
Silver	96.9			ug/L	100.00	0.0123	97	80-120			
Thallium	99.0			ug/L	100.00	-0.295	99	80-120			
Vanadium	102			ug/L	100.00	0.167	102	80-120			
Zinc	104			ug/L	100.00	2.81	101	80-120			
Lithium	88.3			ug/L	100.00	-0.426	88	80-120			
Batch 6120036 - EPA 7470A											
Blank (6120036-BLK1)						Prepared & Analyzed: 12/02/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6120036-BS1)						Prepared & Analyzed: 12/02/16					
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			

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December 08, 2016

Report No.: AZK0850

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120036 - EPA 7470A											
Matrix Spike (6120036-MS1)		**Source: AZK0782-01**				Prepared & Analyzed: 12/02/16					
Mercury	0.00249	0.00050	0.000041	mg/L	2.5000E-3	ND	99	75-125			
Matrix Spike Dup (6120036-MSD1)		**Source: AZK0782-01**				Prepared & Analyzed: 12/02/16					
Mercury	0.00248	0.00050	0.000041	mg/L	2.5000E-3	ND	99	75-125	0.4	20	
Post Spike (6120036-PS1)		**Source: AZK0782-01**				Prepared & Analyzed: 12/02/16					
Mercury	1.73			ug/L	1.6667	0.0118	103	80-120			

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December 08, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

B-01 Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE M-D-YY	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)							LAB ID NUMBER
CONTAINER TYPE								P	P	P							
PRESERVATION								3	7	3							
11-28-16	1235	GW		✓	GWA-2	3		1	1	1							1
11-28-16	1540	GW		✓	GWC-2R	3		1	1	1							2
11-29-16	1035	W		✓	FB-1-11-29-16	3		1	1	1							3
11-29-16	1225	GW		✓	GWC-1R	3		1	1	1							4
11-29-16	1350	GW		✓	GWC-6R	3		1	1	1							5
11-29-16	1430	W		✓	EB-1-11-29-16	3		1	1	1							6

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: ACL Parker ACL
DATE/TIME: 11-29-16 1500
RELINQUISHED BY: ACL Parker
DATE/TIME: 11-29-16 1645

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: Laburman
DATE/TIME: 11/29/16 1645

FOR LAB USE ONLY
LAB #: AZK10850
Entered into LIMS: CoH
Tracking #:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

Checked: No NA
Ice: Yes No NA
Temperature: 1°C Min: 1°C Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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LOG-IN CHECKLIST

Printed: 12/8/2016 3:13:08PM

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 11/29/16 16:45

Work Order: AZK0850
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 6 **#Containers:** 18

Minimum Temp(C): 2.0 **Maximum Temp(C):** 2.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

January 05, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Yates
Pace Project No.: 30204009

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on December 01, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report replaces the December 4, 2017 report. Reissued 12/5/17 to reflect the change of character spaces of results for Ra-228 for Sample 30204009006 as per client request.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Yates
Pace Project No.: 30204009

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Yates
Pace Project No.: 30204009

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30204009001	**GWA-2**	Water	11/28/16 12:35	12/01/16 10:20
30204009002	**GWC-2R**	Water	11/28/16 15:40	12/01/16 10:20
30204009003	**FB-1-11-29-16**	Water	11/29/16 10:35	12/01/16 10:20
30204009004	**GWC-1R**	Water	11/29/16 12:25	12/01/16 10:20
30204009005	**GWC-6R**	Water	11/29/16 13:50	12/01/16 10:20
30204009006	**EB-1-11-29-16**	Water	11/29/16 14:30	12/01/16 10:20

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SAMPLE ANALYTE COUNT

Project: Plant Yates
Pace Project No.: 30204009

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30204009001	**GWA-2**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30204009002	**GWC-2R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30204009003	**FB-1-11-29-16**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30204009004	**GWC-1R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30204009005	**GWC-6R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30204009006	**EB-1-11-29-16**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30204009

Sample: GWA-2 **Lab ID: 30204009001** Collected: 11/28/16 12:35 Received: 12/01/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.164 ± 0.143 (0.258) C:88% T:NA**	pCi/L	12/12/16 07:57	13982-63-3	
Radium-228	EPA 9320	**0.100 ± 0.359 (0.810) C:72% T:83%**	pCi/L	12/30/16 11:19	15262-20-1	
Total Radium	Total Radium Calculation	**0.264 ± 0.502 (1.07)**	pCi/L	01/04/17 15:23	7440-14-4	

Sample: GWC-2R **Lab ID: 30204009002** Collected: 11/28/16 15:40 Received: 12/01/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.323 ± 0.172 (0.220) C:95% T:NA**	pCi/L	12/12/16 07:58	13982-63-3	
Radium-228	EPA 9320	**0.0643 ± 0.394 (0.901) C:64% T:80%**	pCi/L	12/30/16 11:19	15262-20-1	
Total Radium	Total Radium Calculation	**0.387 ± 0.566 (1.12)**	pCi/L	01/04/17 15:23	7440-14-4	

Sample: FB-1-11-29-16 **Lab ID: 30204009003** Collected: 11/29/16 10:35 Received: 12/01/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.000756 ± 0.139 (0.367) C:82% T:NA**	pCi/L	12/12/16 09:38	13982-63-3	
Radium-228	EPA 9320	**0.133 ± 0.327 (0.731) C:63% T:89%**	pCi/L	12/30/16 11:19	15262-20-1	
Total Radium	Total Radium Calculation	**0.134 ± 0.466 (1.10)**	pCi/L	01/04/17 15:23	7440-14-4	

Sample: GWC-1R **Lab ID: 30204009004** Collected: 11/29/16 12:25 Received: 12/01/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.161 ± 0.125 (0.197) C:93% T:NA**	pCi/L	12/12/16 09:38	13982-63-3	
Radium-228	EPA 9320	**0.390 ± 0.450 (0.949) C:65% T:81%**	pCi/L	12/30/16 11:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.551 ± 0.575 (1.15)**	pCi/L	01/04/17 15:23	7440-14-4	

Sample: GWC-6R **Lab ID: 30204009005** Collected: 11/29/16 13:50 Received: 12/01/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.188 ± 0.145 (0.255) C:99% T:NA**	pCi/L	12/12/16 09:38	13982-63-3	
Radium-228	EPA 9320	**0.0439 ± 0.351 (0.809) C:61% T:86%**	pCi/L	12/30/16 11:20	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30204009

Sample: GWC-6R **Lab ID: 30204009005** Collected: 11/29/16 13:50 Received: 12/01/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.232 ± 0.496 (1.06)**	pCi/L	01/04/17 15:23	7440-14-4	

Sample: EB-1-11-29-16 **Lab ID: 30204009006** Collected: 11/29/16 14:30 Received: 12/01/16 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0249 ± 0.100 (0.255) C:89% T:NA**	pCi/L	12/12/16 09:38	13982-63-3	
Radium-228	EPA 9320	**0.000 ± 0.364 (0.847) C:64% T:85%**	pCi/L	12/30/16 11:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.0249 ± 0.464 (1.10)**	pCi/L	01/04/17 15:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30204009

QC Batch: 242578 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30204009003, 30204009004, 30204009005, 30204009006

METHOD BLANK: 1192329 Matrix: Water
Associated Lab Samples: 30204009003, 30204009004, 30204009005, 30204009006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00382 ± 0.0709 (0.204) C:90% T:NA	pCi/L	12/12/16 09:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30204009

QC Batch: 242577 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30204009001, 30204009002

METHOD BLANK: 1192328 Matrix: Water
Associated Lab Samples: 30204009001, 30204009002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0984 ± 0.107 (0.203) C:96% T:NA	pCi/L	12/12/16 08:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30204009

QC Batch: 242766 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30204009001, 30204009002, 30204009003, 30204009004, 30204009005, 30204009006

METHOD BLANK: 1193275 Matrix: Water
Associated Lab Samples: 30204009001, 30204009002, 30204009003, 30204009004, 30204009005, 30204009006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.289 ± 0.348 (0.734) C:64% T:88%	pCi/L	12/30/16 11:18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
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QUALIFIERS

Project: Plant Yates
Pace Project No.: 30204009

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WO# : 30204009

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AZK0850 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 12/30/2016

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWA-2	G	11/28/2016 12:35	AZK0850-01	GW	1	X	001
2	GWC-2R	G	11/28/2016 15:40	AZK0850-02	GW	1	X	002
3	FB-1-11-29-16	G	11/29/2016 10:35	AZK0850-03	~~GW~~ W	1	X	003
4	GWC-1R	G	11/29/2016 12:25	AZK0850-04	GW	1	X	004
5	GWC-6R	G	11/29/2016 13:50	AZK0850-05	GW	1	X	005
6	EB-1-11-29-16	G	11/29/2016 14:30	AZK0850-06	~~GW~~ W	1	X	006
7					BMD 12/5/2016			
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			[signature]	12-1-16 1020	
2					
3					

Cooler Temperature on Receipt N/A °C	Custody Seal Y or (N)	Received on Ice Y or (N)	Sample Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC

This chain of custody is considered complete as is since this information is available in the owner laboratory.

30204009

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com
PROJECT NAME/STATE: Plant Yates Gypsum Storage
PROJECT #: Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE M-D-YY	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470)	Cl, F, SO4, & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER
					CONTAINER TYPE		P	P	P	
					PRESERVATION		3	7	3	
11-28-16	1235	GW		✓	GWA-2	3	1	1	1	1
11-28-16	1540	GW		✓	GWC-2R	3	1	1	1	2
11-29-16	1035	W		✓	FB-1-11-29-16	3	1	1	1	3
11-29-16	1225	GW		✓	GWC-1R	3	1	1	1	4
11-29-16	1350	GW		✓	GWC-6R	3	1	1	1	5
11-29-16	1430	W		✓	EB-1-11-29-16	3	1	1	1	6

CONTAINER TYPE / PRESERVATION

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: C Park ACC
DATE/TIME: 11-29-16 1500
RELINQUISHED BY: C Park
DATE/TIME: 11-29-16 1645

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: M Zalman
DATE/TIME: 11/29/16 1645
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
pH Checked: Yes No NA
Ice: Yes No NA
Temperature: 1°C Min: 1°C Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AZK10850
Entered into LIMS: CH
Tracking #:

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Plant Yates Gypsum Storage.xlsx

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace GA Project # 30204009

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 6812 5100 6829

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp N/A °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 12-01-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used: -Pace Containers Used:	X X			10.
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked. All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenolics	X X			13. PH < 2 Initial when completed ML Date/time of preservation Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: ML Date: 12-01-16

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	12/9/2016
Worklist:	32847
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1192328
MB concentration:	0.098
M/B Counting Uncertainty:	0.106
MB MDC:	0.203
MB Numerical Performance Indicator:	1.83
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32847	**LCSD32847**
Count Date:	12/12/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.673	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.501	
Target Conc. (pCi/L, g, F):	8.909	
Uncertainty (Calculated):	0.419	
Result (pCi/L, g, F):	7.414	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.730	
Numerical Performance Indicator:	-3.48	
Percent Recovery:	83.22%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30204007002	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30204007002DUP	
Sample Result (pCi/L, g, F):	0.725	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.234	
Sample Duplicate Result (pCi/L, g, F):	0.561	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.221	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	0.997	30204007002
Duplicate RPD:	25.45%	30204007002DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

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Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	LAL
Date:	12/9/2016
Worklist:	32848
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1192329
MB concentration:	0.004
M/B Counting Uncertainty:	0.071
MB MDC:	0.204
MB Numerical Performance Indicator:	0.11
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS32848	LCSD32848
Count Date:	12/12/2016	12/12/2016
Spike I.D.:	16-026	16-026
Spike Concentration (pCi/mL):	44.673	44.673
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.506	0.509
Target Conc. (pCi/L, g, F):	8.825	8.785
Uncertainty (Calculated):	0.415	0.413
Result (pCi/L, g, F):	8.177	7.617
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.718	0.688
Numerical Performance Indicator:	-1.53	-2.85
Percent Recovery:	92.66%	86.71%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment	
Sample I.D.:	LCS32848
Duplicate Sample I.D.	LCSD32848
Sample Result (pCi/L, g, F):	8.177
Sample Result Counting Uncertainty (pCi/L, g, F):	0.718
Sample Duplicate Result (pCi/L, g, F):	7.617
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.688
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	1.105
Duplicate RPD:	7.10%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	12/13/2016
Worklist:	32881
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1193275
MB concentration:	0.289
M/B Counting Uncertainty:	0.344
MB MDC:	0.734
MB Numerical Performance Indicator:	1.64
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32881	LCSD32881
Count Date:	12/30/2016	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.690	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.802	
Target Conc. (pCi/L, g, F):	6.403	
Uncertainty (Calculated):	0.461	
Result (pCi/L, g, F):	5.764	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.691	
Numerical Performance Indicator:	-1.51	
Percent Recovery:	90.02%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30204007002	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30204007002DUP	
Sample Result (pCi/L, g, F):	0.198	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.278	
Sample Duplicate Result (pCi/L, g, F):	0.830	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.472	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-2.258	30204007002
Duplicate RPD:	122.84%	30204007002DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Ra_228_32881_W_GA.xls

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZL0037
December 21, 2016
Project: CCR Event
Project #:Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-4R	AZL0037-01	Ground Water	11/30/16 12:15	12/01/16 16:40
GWC-3R	AZL0037-02	Ground Water	11/30/16 15:10	12/01/16 16:40
Dup-1	AZL0037-03	Ground Water	11/30/16 00:00	12/01/16 16:40
GWC-5R	AZL0037-04	Ground Water	12/01/16 13:05	12/01/16 16:40

PACE ANALYTICAL SERVICES, LLC.

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Attention: Mr. Joju Abraham

December 21, 2016

Case Narrative

Plant Yates Gypsum Storage Report AZL0037 12/21/2016
Report revised to correct previously-reported sulfate value on GWC-5R (AZL0037-04).

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037
Client ID: GWC-4R
Date/Time Sampled: 11/30/2016 12:15:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZL0037-01
Date/Time Received: 12/1/2016 4:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	247	25	10	mg/L	SM 2540 C	B-01	1	12/02/16 12:35	12/02/16 12:35	6120057	JPT
Inorganic Anions											
Chloride	48	0.25	0.01	mg/L	EPA 300.0		1	12/02/16 16:34	12/03/16 05:07	6120091	RNB
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	12/02/16 16:34	12/10/16 15:10	6120091	RNB
Sulfate	50	1.0	0.05	mg/L	EPA 300.0		1	12/02/16 16:34	12/10/16 15:10	6120091	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Barium	0.0148	0.0100	0.0004	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Boron	0.813	0.0400	0.0064	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Calcium	13.4	2.50	0.155	mg/L	EPA 6020B	B-01	5	12/06/16 09:50	12/08/16 15:13	6120087	CSW
Chromium	0.0013	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Selenium	0.0046	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:38	6120087	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/07/16 11:20	12/07/16 14:43	6120161	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037
Client ID: GWC-3R
Date/Time Sampled: 11/30/2016 3:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZL0037-02
Date/Time Received: 12/1/2016 4:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	177	25	10	mg/L	SM 2540 C	B-01	1	12/02/16 12:35	12/02/16 12:35	6120057	JPT
Inorganic Anions											
Chloride	7.8	0.25	0.01	mg/L	EPA 300.0		1	12/02/16 16:34	12/03/16 05:50	6120091	RNB
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	12/02/16 16:34	12/10/16 15:52	6120091	RNB
Sulfate	76	2.0	0.10	mg/L	EPA 300.0		2	12/02/16 16:34	12/10/16 15:31	6120091	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Barium	0.0258	0.0100	0.0004	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Beryllium	0.0004	0.0030	0.00008	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Boron	0.0089	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Calcium	6.43	2.50	0.155	mg/L	EPA 6020B	B-01	5	12/06/16 09:50	12/08/16 15:20	6120087	CSW
Chromium	0.0010	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Selenium	0.0054	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:44	6120087	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/07/16 11:20	12/07/16 14:45	6120161	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037
Client ID: Dup-1
Date/Time Sampled: 11/30/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZL0037-03
Date/Time Received: 12/1/2016 4:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	240	25	10	mg/L	SM 2540 C	B-01	1	12/02/16 12:35	12/02/16 12:35	6120057	JPT
Inorganic Anions											
Chloride	49	0.25	0.01	mg/L	EPA 300.0		1	12/02/16 16:34	12/03/16 07:39	6120091	RNB
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	12/02/16 16:34	12/03/16 07:39	6120091	RNB
Sulfate	53	2.0	0.10	mg/L	EPA 300.0		2	12/02/16 16:34	12/10/16 16:13	6120091	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Barium	0.0154	0.0100	0.0004	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Boron	0.822	0.0400	0.0064	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Cadmium	0.00009	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Calcium	13.7	2.50	0.155	mg/L	EPA 6020B	B-01	5	12/06/16 09:50	12/08/16 15:26	6120087	CSW
Chromium	0.0012	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Selenium	0.0045	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:50	6120087	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/07/16 11:20	12/07/16 14:47	6120161	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037
Client ID: GWC-5R
Date/Time Sampled: 12/1/2016 1:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZL0037-04
Date/Time Received: 12/1/2016 4:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1610	25	10	mg/L	SM 2540 C	B-01	1	12/02/16 12:35	12/02/16 12:35	6120057	JPT
Inorganic Anions											
Chloride	6.0	0.25	0.01	mg/L	EPA 300.0		1	12/02/16 16:34	12/03/16 08:01	6120091	RNB
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/02/16 16:34	12/03/16 08:01	6120091	RNB
Sulfate	1100	50	2.6	mg/L	EPA 300.0		50	12/02/16 16:34	12/20/16 05:58	6120091	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Barium	0.0342	0.0100	0.0004	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Beryllium	0.0003	0.0030	0.00008	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Boron	0.0088	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Cadmium	0.0004	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Calcium	141	25.0	1.55	mg/L	EPA 6020B	B-01	50	12/06/16 09:50	12/08/16 15:32	6120087	CSW
Chromium	0.0017	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Selenium	0.0234	0.0100	0.0010	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/06/16 09:50	12/08/16 01:55	6120087	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/07/16 11:20	12/07/16 14:50	6120161	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120057 - SM 2540 C											
Blank (6120057-BLK1)						Prepared & Analyzed: 12/02/16					
Total Dissolved Solids	16	25	10	mg/L							B-01, J
LCS (6120057-BS1)						Prepared & Analyzed: 12/02/16					
Total Dissolved Solids	419	25	10	mg/L	400.00		105	84-108			
Duplicate (6120057-DUP1)			**Source: AZL0033-04**			Prepared & Analyzed: 12/02/16					
Total Dissolved Solids	4020	25	10	mg/L		3970			1	10	B-01
Duplicate (6120057-DUP2)			**Source: AZL0033-06**			Prepared & Analyzed: 12/02/16					
Total Dissolved Solids	37	25	10	mg/L		66			56	10	B-01, QR-03

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120091 - EPA 300.0											
Blank (6120091-BLK1)						Prepared & Analyzed: 12/02/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6120091-BS1)						Prepared & Analyzed: 12/02/16					
Chloride	9.94	0.25	0.01	mg/L	10.010		99	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.020		102	90-110			
Sulfate	9.90	1.0	0.05	mg/L	10.020		99	90-110			
Duplicate (6120091-DUP1)		**Source: AZL0037-04RE2**				Prepared: 12/02/16 Analyzed: 12/20/16					
Chloride	9.10	12	0.70	mg/L		10.2			11	15	J
Fluoride	ND	15	0.95	mg/L		1.25				15	
Sulfate	1070	50	2.6	mg/L		1070			0.8	15	
Matrix Spike (6120091-MS1)		**Source: AZL0002-02**				Prepared & Analyzed: 12/02/16					
Chloride	171	0.25	0.01	mg/L	10.010	178	NR	90-110			QM-02
Fluoride	10.3	0.30	0.02	mg/L	10.020	0.04	103	90-110			
Sulfate	136	1.0	0.05	mg/L	10.020	140	NR	90-110			QM-02
Matrix Spike (6120091-MS2)		**Source: AZL0037-01**				Prepared: 12/02/16 Analyzed: 12/03/16					
Chloride	51.6	0.25	0.01	mg/L	10.010	47.8	39	90-110			QM-02
Fluoride	9.95	0.30	0.02	mg/L	10.020	0.04	99	90-110			
Sulfate	57.9	1.0	0.05	mg/L	10.020	53.6	43	90-110			QM-02
Matrix Spike Dup (6120091-MSD1)		**Source: AZL0002-02**				Prepared & Analyzed: 12/02/16					
Chloride	170	0.25	0.01	mg/L	10.010	178	NR	90-110	0.2	15	QM-02
Fluoride	11.0	0.30	0.02	mg/L	10.020	0.04	110	90-110	6	15	
Sulfate	136	1.0	0.05	mg/L	10.020	140	NR	90-110	0.3	15	QM-02

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120087 - EPA 3005A											
Blank (6120087-BLK1)						Prepared: 12/06/16 Analyzed: 12/08/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	0.0311	0.500	0.0311	mg/L							J
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6120087-BS1)						Prepared: 12/06/16 Analyzed: 12/08/16					
Antimony	0.109	0.0030	0.0008	mg/L	0.10000		109	80-120			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000		101	80-120			
Barium	0.106	0.0100	0.0004	mg/L	0.10000		106	80-120			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000		101	80-120			
Boron	1.04	0.0400	0.0064	mg/L	1.0000		104	80-120			
Cadmium	0.107	0.0010	0.00007	mg/L	0.10000		107	80-120			
Calcium	1.04	0.500	0.0311	mg/L	1.0000		104	80-120			
Chromium	0.110	0.0100	0.0009	mg/L	0.10000		110	80-120			
Cobalt	0.108	0.0100	0.0005	mg/L	0.10000		108	80-120			
Copper	0.108	0.0250	0.0005	mg/L	0.10000		108	80-120			
Lead	0.104	0.0050	0.0001	mg/L	0.10000		104	80-120			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000		109	80-120			
Nickel	0.109	0.0100	0.0006	mg/L	0.10000		109	80-120			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000		103	80-120			
Silver	0.106	0.0100	0.0005	mg/L	0.10000		106	80-120			
Thallium	0.103	0.0010	0.0002	mg/L	0.10000		103	80-120			
Vanadium	0.112	0.0100	0.0071	mg/L	0.10000		112	80-120			
Zinc	0.111	0.0100	0.0021	mg/L	0.10000		111	80-120			
Lithium	0.102	0.0500	0.0021	mg/L	0.10000		102	80-120			

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120087 - EPA 3005A											
Matrix Spike (6120087-MS1)		**Source: AZL0037-01**			Prepared: 12/06/16 Analyzed: 12/08/16						
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	ND	107	75-125			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125			
Barium	0.116	0.0100	0.0004	mg/L	0.10000	0.0148	101	75-125			
Beryllium	0.102	0.0030	0.00008	mg/L	0.10000	ND	102	75-125			
Boron	1.84	0.200	0.0321	mg/L	1.0000	0.813	102	75-125			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000	ND	105	75-125			
Calcium	14.4	2.50	0.155	mg/L	1.0000	13.4	102	75-125			QM-02
Chromium	0.111	0.0100	0.0009	mg/L	0.10000	0.0013	110	75-125			
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	0.0008	103	75-125			
Copper	0.103	0.0250	0.0005	mg/L	0.10000	ND	103	75-125			
Lead	0.103	0.0050	0.0001	mg/L	0.10000	ND	103	75-125			
Molybdenum	0.107	0.0100	0.0017	mg/L	0.10000	ND	107	75-125			
Nickel	0.106	0.0100	0.0006	mg/L	0.10000	0.0022	104	75-125			
Selenium	0.106	0.0100	0.0010	mg/L	0.10000	0.0046	101	75-125			
Silver	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000	ND	102	75-125			
Vanadium	0.111	0.0100	0.0071	mg/L	0.10000	ND	111	75-125			
Zinc	0.101	0.0100	0.0021	mg/L	0.10000	ND	101	75-125			
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	ND	101	75-125			
Matrix Spike Dup (6120087-MSD1)		**Source: AZL0037-01**			Prepared: 12/06/16 Analyzed: 12/08/16						
Antimony	0.113	0.0030	0.0008	mg/L	0.10000	ND	113	75-125	5	20	
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125	1	20	
Barium	0.121	0.0100	0.0004	mg/L	0.10000	0.0148	106	75-125	4	20	
Beryllium	0.105	0.0030	0.00008	mg/L	0.10000	ND	105	75-125	2	20	
Boron	1.85	0.200	0.0321	mg/L	1.0000	0.813	104	75-125	0.8	20	
Cadmium	0.109	0.0010	0.00007	mg/L	0.10000	ND	109	75-125	3	20	
Calcium	14.4	2.50	0.155	mg/L	1.0000	13.4	103	75-125	0.02	20	QM-02
Chromium	0.110	0.0100	0.0009	mg/L	0.10000	0.0013	109	75-125	0.4	20	
Cobalt	0.107	0.0100	0.0005	mg/L	0.10000	0.0008	106	75-125	2	20	
Copper	0.104	0.0250	0.0005	mg/L	0.10000	ND	104	75-125	1	20	
Lead	0.105	0.0050	0.0001	mg/L	0.10000	ND	105	75-125	2	20	
Molybdenum	0.112	0.0100	0.0017	mg/L	0.10000	ND	112	75-125	5	20	
Nickel	0.106	0.0100	0.0006	mg/L	0.10000	0.0022	103	75-125	0.3	20	
Selenium	0.107	0.0100	0.0010	mg/L	0.10000	0.0046	102	75-125	0.9	20	
Silver	0.108	0.0100	0.0005	mg/L	0.10000	ND	108	75-125	6	20	
Thallium	0.106	0.0010	0.0002	mg/L	0.10000	ND	106	75-125	3	20	
Vanadium	0.112	0.0100	0.0071	mg/L	0.10000	ND	112	75-125	1	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125	3	20	
Lithium	0.106	0.0500	0.0021	mg/L	0.10000	ND	106	75-125	4	20	

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120087 - EPA 3005A											
Post Spike (6120087-PS1)			**Source: AZL0037-01**			Prepared: 12/06/16 Analyzed: 12/08/16					
Antimony	104			ug/L	100.00	0.0777	104	80-120			
Arsenic	103			ug/L	100.00	0.883	102	80-120			
Barium	120			ug/L	100.00	14.8	105	80-120			
Beryllium	101			ug/L	100.00	0.0120	101	80-120			
Boron	1880			ug/L	1000.0	813	106	80-120			
Cadmium	107			ug/L	100.00	0.0456	107	80-120			
Calcium	14200			ug/L	1000.0	13400	77	80-120			QM-02
Chromium	113			ug/L	100.00	1.25	112	80-120			
Cobalt	108			ug/L	100.00	0.832	107	80-120			
Copper	108			ug/L	100.00	0.250	107	80-120			
Lead	103			ug/L	100.00	0.0154	103	80-120			
Molybdenum	109			ug/L	100.00	0.0644	109	80-120			
Nickel	111			ug/L	100.00	2.16	109	80-120			
Selenium	109			ug/L	100.00	4.63	105	80-120			
Silver	105			ug/L	100.00	0.0030	105	80-120			
Thallium	104			ug/L	100.00	0.0519	104	80-120			
Vanadium	113			ug/L	100.00	1.73	112	80-120			
Zinc	105			ug/L	100.00	1.76	103	80-120			
Lithium	102			ug/L	100.00	0.977	101	80-120			
Batch 6120161 - EPA 7470A											
Blank (6120161-BLK1)						Prepared & Analyzed: 12/07/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6120161-BS1)						Prepared & Analyzed: 12/07/16					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report No.: AZL0037

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120161 - EPA 7470A											
Matrix Spike (6120161-MS1)			**Source: AZL0033-05**			Prepared & Analyzed: 12/07/16					
Mercury	0.00226	0.00050	0.000041	mg/L	2.5000E-3	ND	91	75-125			
Matrix Spike Dup (6120161-MSD1)			**Source: AZL0033-05**			Prepared & Analyzed: 12/07/16					
Mercury	0.00233	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	3	20	
Post Spike (6120161-PS1)			**Source: AZL0033-05**			Prepared & Analyzed: 12/07/16					
Mercury	1.61			ug/L	1.6667	0.00663	96	80-120			

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December 21, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

B-01 Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 21, 2016

Report Notes

Per client request 12/15/2016, GWC-5R (AZL0037-04) data for sulfate was reassessed. BMcD

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: ~~Semi-Annual Monitoring~~ YATES GYPSUM STORAGE PHASE II CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE							P	P	P		
PRESERVATION							3	7	3		
11-30-16	1215	GW		✓	GWC-4R	3	1	1	1	1	
11-30-16	1510	GW		✓	GWC-3R	3	1	1	1	2	
11-30-16	—	GW		✓	DUP-1	3	1	1	1	3	
12-1-16	1305	GW		✓	GWC-5R	4	1	1	2	4	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: Chris Paul ACC
DATE/TIME: 12-1-16 1400

RELINQUISHED BY:
DATE/TIME: 12-1-16 1640

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB: M Lawman
DATE/TIME: 12/01/16 1640

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

Received on Ice: Yes No NA
Temperature: °C Min: °C Max:

FOR LAB USE ONLY
LAB #: 92L0037
Entered into LIMS: MR
Tracking #:

Yates State constituents Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Tl, V, Zn

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 12/21/2016 1:41:47PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 12/01/16 16:40

Work Order: AZL0037
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 4 **#Containers:** 13

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Per client request 12/15/2016, GWC-5R (AZL0037-04) data for sulfate was reassessed. BMcD

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

January 11, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Yates
Pace Project No.: 30204306

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on December 05, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Yates
Pace Project No.: 30204306

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Plant Yates
Pace Project No.: 30204306

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30204306001	**GWC-4R**	Water	11/30/16 12:15	12/05/16 09:45
30204306002	**GWC-3R**	Water	11/30/16 15:10	12/05/16 09:45
30204306003	**Dup-1**	Water	11/30/16 00:00	12/05/16 09:45
30204306004	**GWC-5R**	Water	12/01/16 13:05	12/05/16 09:45

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Yates
Pace Project No.: 30204306

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30204306001	**GWC-4R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204306002	**GWC-3R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204306003	**Dup-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204306004	**GWC-5R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30204306

Sample: GWC-4R **Lab ID: 30204306001** Collected: 11/30/16 12:15 Received: 12/05/16 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0305 ± 0.116 (0.287) C:106% T:NA**	pCi/L	12/12/16 09:39	13982-63-3	
Radium-228	EPA 9320	**0.446 ± 0.450 (0.932) C:67% T:82%**	pCi/L	01/08/17 13:26	15262-20-1	
Total Radium	Total Radium Calculation	**0.477 ± 0.566 (1.22)**	pCi/L	01/11/17 15:36	7440-14-4	

Sample: GWC-3R **Lab ID: 30204306002** Collected: 11/30/16 15:10 Received: 12/05/16 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0236 ± 0.100 (0.254) C:100% T:NA**	pCi/L	12/12/16 09:39	13982-63-3	
Radium-228	EPA 9320	**-0.467 ± 0.365 (0.951) C:65% T:77%**	pCi/L	01/08/17 13:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.0236 ± 0.465 (1.21)**	pCi/L	01/11/17 15:36	7440-14-4	

Sample: Dup-1 **Lab ID: 30204306003** Collected: 11/30/16 00:00 Received: 12/05/16 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0198 ± 0.134 (0.368) C:83% T:NA**	pCi/L	12/19/16 09:55	13982-63-3	
Radium-228	EPA 9320	**0.0739 ± 0.389 (0.890) C:70% T:73%**	pCi/L	01/08/17 13:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.0739 ± 0.523 (1.26)**	pCi/L	01/11/17 15:36	7440-14-4	

Sample: GWC-5R **Lab ID: 30204306004** Collected: 12/01/16 13:05 Received: 12/05/16 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0210 ± 0.0911 (0.235) C:95% T:NA**	pCi/L	12/19/16 10:14	13982-63-3	
Radium-228	EPA 9320	**0.0378 ± 0.364 (0.840) C:72% T:78%**	pCi/L	01/08/17 13:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.0588 ± 0.455 (1.08)**	pCi/L	01/11/17 15:36	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30204306

QC Batch: 242578 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30204306001, 30204306002

METHOD BLANK: 1192329 Matrix: Water
Associated Lab Samples: 30204306001, 30204306002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00382 ± 0.0709 (0.204) C:90% T:NA	pCi/L	12/12/16 09:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30204306

QC Batch: 243000 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30204306003, 30204306004

METHOD BLANK: 1195272 Matrix: Water
Associated Lab Samples: 30204306003, 30204306004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0698 ± 0.0862 (0.168) C:97% T:NA	pCi/L	12/19/16 09:55	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30204306

QC Batch: 243002 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30204306001, 30204306002, 30204306003, 30204306004

METHOD BLANK: 1195278 Matrix: Water
Associated Lab Samples: 30204306001, 30204306002, 30204306003, 30204306004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.184 ± 0.381 (0.841) C:71% T:77%	pCi/L	01/08/17 13:26	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Plant Yates
Pace Project No.: 30204306

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WO#:30204306

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AZL0037 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 1/3/2017

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis Radium 226, 228, Total	LAB USE ONLY
1	GWC-4R	G	11/30/2016 12:15	AZL0037-01	GW	1	X	001
2	GWC-3R	G	11/30/2016 15:10	AZL0037-02	GW	1	X	002
3	Dup-1	G	11/30/2016 0:00	AZL0037-03	GW	1	X	003
4	GWC-5R	G	12/1/2016 13:05	AZL0037-04	GW	2	X	004
5								
6								
7								
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Karen Hill	12-5-16 0945	
2					
3					

Cooler Temperature on Receipt NA °C | **Custody Seal Y or (N)** | **Received on Ice Y or (N)** | **Sample Intact (Y) or N**

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

30204306

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: ~~Semi Annual Monitoring~~ YATES GYPSUM STORAGE PHASE II CCR

ANALYSIS REQUESTED

	Metals App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)
CONTAINER TYPE	P	P	P
PRESERVATION	3	7	3

Collection DATE M-D-YY	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV	Cl, F, SO_4 & TDS	Radium 226 & 228	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
11-30-16	1215	GW		✓	GWC-4R	3	1	1	1	1	
11-30-16	1510	GW		✓	GWC-3R	3	1	1	1	2	
11-30-16	—	GW		✓	DUP-1	3	1	1	1	3	
12-1-16	1305	GW		✓	GWC-5R	4	1	1	2	4	

CONTAINER TYPE
- P - PLASTIC
- A - AMBER GLASS
- G - CLEAR GLASS
- V - VOA VIAL
- S - STERILE
- O - OTHER

PRESERVATION
- 1 - HCl, ≤6°C
- 2 - H_2SO_4, ≤6°C
- 3 - HNO_3
- 4 - NaOH, ≤6°C
- 5 - NaOH/ZnAc, ≤6°C
- 6 - $Na_2S_2O_3$, ≤6°C
- 7 - ≤6°C not frozen

*MATRIX CODES:
- DW - DRINKING WATER
- WW - WASTEWATER
- GW - GROUNDWATER
- SW - SURFACE WATER
- ST - STORM WATER
- W - WATER
- S - SOIL
- SL - SLUDGE
- SD - SOLID
- A - AIR
- L - LIQUID
- P - PRODUCT

SAMPLED BY AND TITLE: [signature] ACC — DATE/TIME: 12-1-16 1400

RELINQUISHED BY: [signature] — DATE/TIME: 12-1-16 1640

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: M Lanman — DATE/TIME: 12/01/16 1640

pH checked: (Yes) No NA — Ice: (Yes) No NA — Temperature: 1°C Min: 1°C Max:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (CLIENT) OTHER FS

Custody Seal: (Intact) Broken Not Present — # of Coolers: — Cooler ID:

FOR LAB USE ONLY
LAB #: AZL0037
Entered into LIMS: [initials]
Tracking #:

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn Gypsum Storage.xlsx

Sample Condition Upon Receipt Pittsburgh

30204306

Pace Analytical

Client Name: Pace Georgia

Project # ~~30204306~~ 6 12-5-16 KEH

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 6012 5100 7663

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 12-5-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:		✓		
Containers Intact:	✓			11.
Filtered volume received for Dissolved tests			✓	12.
All containers needing preservation have been checked.	✓			13. pH <2
All containers needing preservation are found to be in compliance with EPA recommendation.	✓			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed KH; Date/time of preservation; Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	14.
Trip Blank Present:			✓	15.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr		✓		Initial when completed: KH Date: 12-5-16

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	LAL
Date:	12/9/2016
Worklist:	32848
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1192329
MB concentration:	0.004
M/B Counting Uncertainty:	0.071
MB MDC:	0.204
MB Numerical Performance Indicator:	0.11
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS32848	**LCSD32848**
Count Date:	12/12/2016	12/12/2016
Spike I.D.:	16-026	16-026
Spike Concentration (pCi/mL):	44.673	44.673
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.506	0.509
Target Conc. (pCi/L, g, F):	8.825	8.785
Uncertainty (Calculated):	0.415	0.413
Result (pCi/L, g, F):	8.177	7.617
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.718	0.688
Numerical Performance Indicator:	-1.53	-2.85
Percent Recovery:	92.66%	86.71%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS32848
Duplicate Sample I.D.	LCSD32848
Sample Result (pCi/L, g, F):	8.177
Sample Result Counting Uncertainty (pCi/L, g, F):	0.718
Sample Duplicate Result (pCi/L, g, F):	7.617
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.688
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	1.105
Duplicate RPD:	7.10%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment
Sample Collection Date:
Sample I.D.
Sample MS I.D.
Sample MSD I.D.
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc.(pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.
Sample MS I.D.
Sample MSD I.D.
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/ MSD Duplicate RPD:
MS/ MSD Duplicate Status vs Numerical Indicator:
MS/ MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	12/16/2016
Worklist:	32909
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1195272
MB concentration:	0.070
M/B Counting Uncertainty:	0.086
MB MDC:	0.168
MB Numerical Performance Indicator:	1.60
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32909	LCSD32909
Count Date:	12/19/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.672	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.506	
Target Conc. (pCi/L, g, F):	8.828	
Uncertainty (Calculated):	0.415	
Result (pCi/L, g, F):	7.612	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.708	
Numerical Performance Indicator:	-2.90	
Percent Recovery:	86.22%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30204306004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30204306004DUP	
Sample Result (pCi/L, g, F):	0.021	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.091	
Sample Duplicate Result (pCi/L, g, F):	0.129	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.143	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.252	30204306004
Duplicate RPD:	144.06%	30204306004DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

1/11/17

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	12/28/2016
Worklist:	32911
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1195278
MB concentration:	0.184
M/B Counting Uncertainty:	0.379
MB MDC:	0.841
MB Numerical Performance Indicator:	0.95
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)? LCS32911	N LCSD32911
Count Date:	1/8/2017	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.614	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.820	
Target Conc. (pCi/L, g, F):	6.247	
Uncertainty (Calculated):	0.450	
Result (pCi/L, g, F):	5.528	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.698	
Numerical Performance Indicator:	-1.70	
Percent Recovery:	88.48%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30204292009	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30204292009DUP	
Sample Result (pCi/L, g, F):	3.181	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.749	
Sample Duplicate Result (pCi/L, g, F):	1.084	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.394	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	4.855	30204292009
Duplicate RPD:	98.30%	30204292009DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

1/11/17

Product Name: Low-Flow System

Date: 2016-11-28 12:35:37

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage P	Tubing Diameter	.375 in
Site Name	lant Yates - Gysum Storage	Tubing Length	55 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	1.679525 L
Well Total Depth	52.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	39.28 ft	Total Volume Pumped	3.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:12:09	600.02	17.81	6.34	196.46	1.08	40.20	0.78	-19.32
Last 5	12:17:09	900.02	17.81	6.28	189.52	1.43	40.20	0.77	-2.18
Last 5	12:22:09	1200.02	17.90	6.29	185.23	0.93	40.30	0.68	15.16
Last 5	12:27:09	1500.02	17.98	6.26	184.01	0.68	40.30	0.61	31.42
Last 5	12:32:09	1800.02	18.02	6.23	184.14	0.61	40.30	0.55	46.28
Variance 0			0.09	0.01	-4.29			-0.09	17.34
Variance 1			0.08	-0.03	-1.22			-0.07	16.26
Variance 2			0.04	-0.03	0.13			-0.05	14.86

Notes

Collected at 12:35. Cloudy 60s

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-29 12:25:28

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	peri pump
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.17 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	40 ft
Latitude	33º 27' 55.94"		
Longitude	-84º -53' -53.56"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	32 ft

Well Information:		Pumping Information:	
Well ID	GWC-1R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	36.33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	17 in
Depth to Water	28.15 ft	Total Volume Pumped	15.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:59:30	5399.90	17.13	5.37	882.27	0.90	29.70	6.51	106.95
Last 5	12:04:30	5699.90	17.19	5.37	879.92	0.88	29.70	6.51	106.67
Last 5	12:09:30	5999.90	17.20	5.37	877.43	1.33	29.70	6.49	106.43
Last 5	12:14:30	6299.90	17.19	5.37	875.78	1.59	29.70	6.48	106.17
Last 5	12:19:30	6599.90	17.28	5.37	875.04	1.38	29.70	6.49	106.03
Variance 0			0.01	0.00	-2.49			-0.02	-0.25
Variance 1			-0.01	0.00	-1.66			-0.00	-0.26
Variance 2			0.09	0.00	-0.74			0.01	-0.14

Notes

Grab Samples

Collected at 15:40; Cloudy 60s

Product Name: Low-Flow System

Date: 2016-11-28 15:39:41

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.375 in
Site Name	Plant Yates - Ash Ponds	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	37.5 ft

Well Information:		Pumping Information:	
Well ID	GWC-2R	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	1.462339 L
Well Total Depth	43.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2 in
Depth to Water	31.29 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:15:01	5702.95	17.81	5.46	308.05	11.00	31.40	5.06	87.96
Last 5	15:20:01	6002.96	17.81	5.48	311.56	7.95	31.40	5.08	87.14
Last 5	15:25:01	6302.91	17.82	5.47	314.43	6.61	31.40	5.09	87.36
Last 5	15:30:01	6602.91	17.90	5.46	314.98	5.12	31.40	5.08	87.89
Last 5	15:35:01	6902.91	17.98	5.47	316.45	4.67	31.40	5.09	87.45
Variance 0			0.00	-0.01	2.87			0.01	0.22
Variance 1			0.08	-0.01	0.55			-0.00	0.53
Variance 2			0.08	0.01	1.47			0.01	-0.45

Notes

Collected at 13:40. Cloudy 60s

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-30 15:10:23

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.375 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	45 ft
Latitude	33º 27' 55.94"		
Longitude	-84º -53' -53.56"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	34 ft

Well Information:		Pumping Information:	
Well ID	GWC-3R	Final Pumping Rate	120 mL/min
Well diameter	2 in	Total System Volume	1.367339 L
Well Total Depth	38.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	32.32 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:44:31	4799.94	17.68	5.12	231.34	2.68	32.60	6.97	105.65
Last 5	14:49:31	5099.92	17.71	5.14	229.68	2.78	32.60	6.96	105.18
Last 5	14:54:31	5399.93	17.71	5.13	227.31	2.51	32.60	6.96	104.61
Last 5	14:59:31	5699.92	17.68	5.14	226.77	1.87	32.60	6.96	104.41
Last 5	15:04:31	5999.92	17.72	5.13	225.82	1.95	32.60	6.95	103.98
Variance 0			-0.00	-0.00	-2.36			-0.00	-0.57
Variance 1			-0.03	0.01	-0.54			-0.01	-0.20
Variance 2			0.04	-0.01	-0.95			-0.01	-0.43

Notes

Collected at 15:10. Rain, 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-30 12:14:19

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	peri pump
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.17 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	35 ft
Latitude	33º 27' 55.94"		
Longitude	-84º -53' -53.56"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	26 ft

Well Information:		Pumping Information:	
Well ID	GWC-4R	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	31.02 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	19.42 ft	Total Volume Pumped	15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:50:37	5102.94	20.57	5.61	500.19	1.46	19.70	2.72	103.35
Last 5	11:55:41	5406.92	20.59	5.60	457.94	1.29	19.70	2.81	104.54
Last 5	12:00:41	5706.93	20.84	5.60	415.11	1.40	19.70	3.14	105.11
Last 5	12:05:44	6009.93	20.86	5.60	426.95	1.29	19.70	3.05	105.51
Last 5	12:10:45	6310.91	20.94	5.61	432.29	1.35	19.70	3.13	105.74
Variance 0			0.25	0.00	-42.83			0.33	0.56
Variance 1			0.02	-0.00	11.84			-0.10	0.40
Variance 2			0.08	0.01	5.33			0.08	0.23

Notes

Collected at 12:15. Cloudy 70s. DUP 1 here

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-01 13:03:16

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.375 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	47 ft
Latitude	33º 27' 55.94"		
Longitude	-84º -53' -53.56"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-5R	Final Pumping Rate	120 mL/min
Well diameter	2 in	Total System Volume	1.410776 L
Well Total Depth	42.78 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	15 in
Depth to Water	35.07 ft	Total Volume Pumped	17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:40:19	7501.10	16.11	5.24	1792.60	6.08	36.50	6.49	104.98
Last 5	12:45:19	7800.89	16.56	5.24	1801.74	5.45	36.50	6.43	106.30
Last 5	12:50:19	8100.88	16.56	5.25	1792.24	5.04	36.50	6.40	106.20
Last 5	12:55:19	8400.87	16.43	5.24	1803.79	4.95	36.50	6.45	106.47
Last 5	13:00:19	8700.87	16.74	5.24	1795.48	4.59	36.60	6.43	106.45
Variance 0			-0.00	0.01	-9.50			-0.04	-0.10
Variance 1			-0.13	-0.01	11.56			0.05	0.27
Variance 2			0.32	0.00	-8.32			-0.01	-0.02

Notes

Collected at 13:05. Sunny 50s

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-29 13:50:51

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.375 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	55 ft
Latitude	33º 27' 55.94"		
Longitude	-84º -53' -53.56"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	46 ft

Well Information:		Pumping Information:	
Well ID	GWC-6R	Final Pumping Rate	110 mL/min
Well diameter	2 in	Total System Volume	1.584525 L
Well Total Depth	51.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5 in
Depth to Water	39.17 ft	Total Volume Pumped	3.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:27:04	600.03	17.34	5.93	686.40	1.75	39.50	5.83	100.37
Last 5	13:32:04	900.02	17.28	5.93	694.61	3.15	39.50	5.87	99.32
Last 5	13:37:04	1200.02	17.23	5.92	702.12	1.91	39.50	5.88	98.83
Last 5	13:42:04	1499.99	17.23	5.92	702.53	1.24	39.50	5.86	98.04
Last 5	13:47:04	1799.99	17.23	5.92	701.40	1.85	39.50	5.87	97.78
Variance 0			-0.05	-0.01	7.50			0.01	-0.50
Variance 1			0.00	0.01	0.41			-0.01	-0.79
Variance 2			-0.00	-0.00	-1.13			0.01	-0.26

Notes

Collected at 13:50. Cloudy 60s

Grab Samples

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAB0887
March 07, 2017
Project: CCR Event
Project #:Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-2	AAB0887-01	Ground Water	02/22/17 11:20	02/24/17 15:30
GWC-2R	AAB0887-02	Ground Water	02/22/17 14:25	02/24/17 15:30
EB-1-2-22-17	AAB0887-03	Water	02/22/17 15:05	02/24/17 15:30
GWC-6R	AAB0887-04	Ground Water	02/23/17 10:40	02/24/17 15:30
FB-1-2-23-17	AAB0887-05	Water	02/23/17 12:30	02/24/17 15:30
GWC-3R	AAB0887-06	Ground Water	02/23/17 13:30	02/24/17 15:30
GWC-1R	AAB0887-07	Ground Water	02/23/17 13:55	02/24/17 15:30
GWC-4R	AAB0887-08	Ground Water	02/24/17 10:00	02/24/17 15:30
GWC-5R	AAB0887-09	Ground Water	02/24/17 11:50	02/24/17 15:30
Dup-1	AAB0887-10	Ground Water	02/23/17 00:00	02/24/17 15:30

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: GWA-2
Date/Time Sampled: 2/22/2017 11:20:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0887-01
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	164	25	10	mg/L	SM 2540 C		1	02/27/17 15:40	02/27/17 15:40	7020794	JPT
Inorganic Anions											
Chloride	3.7	0.25	0.01	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 02:11	7030131	RLC
Fluoride	0.09	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 02:11	7030131	RLC
Sulfate	43	1.0	0.09	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 02:11	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Barium	0.0607	0.0100	0.0004	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Calcium	10.4	2.50	0.155	mg/L	EPA 6020B		5	02/27/17 16:00	03/03/17 16:50	7020811	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Cobalt	0.0049	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Copper	0.0011	0.0250	0.0005	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Nickel	0.0051	0.0100	0.0006	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Zinc	0.0042	0.0100	0.0021	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:04	7020811	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:14	7020822	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: GWC-2R
Date/Time Sampled: 2/22/2017 2:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0887-02
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	240	25	10	mg/L	SM 2540 C		1	02/27/17 15:40	02/27/17 15:40	7020794	JPT
Inorganic Anions											
Chloride	5.7	0.25	0.01	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 02:32	7030131	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 02:32	7030131	RLC
Sulfate	100	5.0	0.46	mg/L	EPA 300.0		5	03/03/17 17:21	03/06/17 01:55	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Barium	0.0481	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Boron	0.0192	0.0400	0.0064	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Calcium	16.2	2.50	0.155	mg/L	EPA 6020B		5	03/01/17 09:10	03/06/17 18:42	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Cobalt	0.0184	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Nickel	0.0009	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Selenium	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Zinc	0.0024	0.0100	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Lithium	0.0036	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 19:40	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:16	7020822	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: EB-1-2-22-17
Date/Time Sampled: 2/22/2017 3:05:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAB0887-03
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 02:52	7030131	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 02:52	7030131	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 02:52	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	02/27/17 16:00	03/03/17 16:55	7020811	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:16	7020811	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:19	7020822	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: GWC-6R
Date/Time Sampled: 2/23/2017 10:40:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0887-04
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	614	25	10	mg/L	SM 2540 C		1	02/28/17 17:10	02/28/17 17:10	7020841	JPT
Inorganic Anions											
Chloride	4.4	0.25	0.01	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 03:13	7030131	RLC
Fluoride	0.07	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 03:13	7030131	RLC
Sulfate	380	10	0.92	mg/L	EPA 300.0		10	03/03/17 17:21	03/06/17 02:15	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Barium	0.0581	0.0100	0.0004	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Calcium	63.5	5.00	0.311	mg/L	EPA 6020B		10	02/27/17 16:00	03/03/17 17:01	7020811	KLH
Chromium	0.0017	0.0100	0.0009	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Copper	0.0018	0.0250	0.0005	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Nickel	0.0015	0.0100	0.0006	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Selenium	0.0018	0.0100	0.0010	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Zinc	0.0038	0.0100	0.0021	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Lithium	0.0028	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:21	7020811	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:21	7020822	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: FB-1-2-23-17
Date/Time Sampled: 2/23/2017 12:30:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAB0887-05
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	02/28/17 17:10	02/28/17 17:10	7020841	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 03:34	7030131	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 03:34	7030131	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 03:34	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Calcium	0.0390	0.500	0.0311	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/03/17 17:07	7020811	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:33	7020811	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:24	7020822	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: GWC-3R
Date/Time Sampled: 2/23/2017 1:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0887-06
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	105	25	10	mg/L	SM 2540 C		1	02/28/17 17:10	02/28/17 17:10	7020841	JPT
Inorganic Anions											
Chloride	6.5	0.25	0.01	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 03:54	7030131	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 03:54	7030131	RLC
Sulfate	47	1.0	0.09	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 03:54	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Barium	0.0278	0.0100	0.0004	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Beryllium	0.0003	0.0030	0.00008	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Calcium	4.25	0.500	0.0311	mg/L	EPA 6020B		1	02/27/17 16:00	03/03/17 17:12	7020811	KLH
Chromium	0.0012	0.0100	0.0009	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Selenium	0.0020	0.0100	0.0010	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Zinc	0.0031	0.0100	0.0021	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 21:50	7020811	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:26	7020822	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: GWC-1R
Date/Time Sampled: 2/23/2017 1:55:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0887-07
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	581	25	10	mg/L	SM 2540 C		1	02/28/17 17:10	02/28/17 17:10	7020841	JPT
Inorganic Anions											
Chloride	6.2	0.25	0.01	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 04:56	7030131	RLC
Fluoride	0.06	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 04:56	7030131	RLC
Sulfate	390	10	0.92	mg/L	EPA 300.0		10	03/03/17 17:21	03/06/17 04:19	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Barium	0.0646	0.0100	0.0004	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Boron	0.0082	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Calcium	62.4	5.00	0.311	mg/L	EPA 6020B		10	02/27/17 16:00	03/03/17 17:18	7020811	KLH
Chromium	0.0010	0.0100	0.0009	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Nickel	0.0026	0.0100	0.0006	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Selenium	0.0097	0.0100	0.0010	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Zinc	0.0024	0.0100	0.0021	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:01	7020811	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:33	7020822	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: GWC-4R
Date/Time Sampled: 2/24/2017 10:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0887-08
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	414	25	10	mg/L	SM 2540 C		1	02/28/17 17:10	02/28/17 17:10	7020841	JPT
Inorganic Anions											
Chloride	130	1.2	0.06	mg/L	EPA 300.0		5	03/03/17 17:21	03/06/17 04:40	7030131	RLC
Fluoride	0.08	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 05:17	7030131	RLC
Sulfate	110	5.0	0.46	mg/L	EPA 300.0		5	03/03/17 17:21	03/06/17 04:40	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Barium	0.0290	0.0100	0.0004	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Boron	2.53	0.0400	0.0064	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Calcium	29.5	5.00	0.311	mg/L	EPA 6020B		10	02/27/17 16:00	03/03/17 17:34	7020811	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Cobalt	0.0025	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Nickel	0.0021	0.0100	0.0006	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Selenium	0.0108	0.0100	0.0010	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Zinc	0.0028	0.0100	0.0021	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:13	7020811	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:35	7020822	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: GWC-5R
Date/Time Sampled: 2/24/2017 11:50:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0887-09
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1200	25	10	mg/L	SM 2540 C		1	02/28/17 17:10	02/28/17 17:10	7020841	JPT
Inorganic Anions											
Chloride	3.4	0.25	0.01	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 07:00	7030131	RLC
Fluoride	0.03	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 07:00	7030131	RLC
Sulfate	850	50	4.6	mg/L	EPA 300.0		50	03/03/17 17:21	03/07/17 12:56	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Barium	0.0347	0.0100	0.0004	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Beryllium	0.0002	0.0030	0.00008	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Boron	0.0067	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Cadmium	0.0003	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Calcium	118	25.0	1.55	mg/L	EPA 6020B		50	02/27/17 16:00	03/03/17 17:40	7020811	KLH
Chromium	0.0018	0.0100	0.0009	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Nickel	0.0019	0.0100	0.0006	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Selenium	0.0154	0.0100	0.0010	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Zinc	0.0043	0.0100	0.0021	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:24	7020811	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:38	7020822	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887
Client ID: Dup-1
Date/Time Sampled: 2/23/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0887-10
Date/Time Received: 2/24/2017 3:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	599	25	10	mg/L	SM 2540 C		1	02/28/17 17:10	02/28/17 17:10	7020841	JPT
Inorganic Anions											
Chloride	6.0	0.25	0.01	mg/L	EPA 300.0		1	03/03/17 17:21	03/04/17 07:21	7030131	RLC
Fluoride	0.06	0.30	0.004	mg/L	EPA 300.0	J	1	03/03/17 17:21	03/04/17 07:21	7030131	RLC
Sulfate	370	10	0.92	mg/L	EPA 300.0		10	03/03/17 17:21	03/06/17 05:21	7030131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Barium	0.0660	0.0100	0.0004	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Boron	0.0079	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Calcium	62.7	5.00	0.311	mg/L	EPA 6020B		10	02/27/17 16:00	03/03/17 17:46	7020811	KLH
Chromium	0.0010	0.0100	0.0009	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Cobalt	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Nickel	0.0025	0.0100	0.0006	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Selenium	0.0095	0.0100	0.0010	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Zinc	0.0025	0.0100	0.0021	mg/L	EPA 6020B	J	1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/27/17 16:00	03/02/17 22:36	7020811	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/28/17 10:00	02/28/17 16:40	7020822	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020794 - SM 2540 C											
Blank (7020794-BLK1)						Prepared & Analyzed: 02/27/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7020794-BS1)						Prepared & Analyzed: 02/27/17					
Total Dissolved Solids	418	25	10	mg/L	400.00		104	84-108			
Duplicate (7020794-DUP1)		**Source: AAB0838-02**				Prepared & Analyzed: 02/27/17					
Total Dissolved Solids	520	25	10	mg/L		504			3	10	
Duplicate (7020794-DUP2)		**Source: AAB0838-08**				Prepared & Analyzed: 02/27/17					
Total Dissolved Solids	20	25	10	mg/L		22			10	10	J
Batch 7020841 - SM 2540 C											
Blank (7020841-BLK1)						Prepared & Analyzed: 02/28/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7020841-BS1)						Prepared & Analyzed: 02/28/17					
Total Dissolved Solids	396	25	10	mg/L	400.00		99	84-108			
Duplicate (7020841-DUP1)		**Source: AAB0884-02**				Prepared & Analyzed: 02/28/17					
Total Dissolved Solids	772	25	10	mg/L		733			5	10	
Duplicate (7020841-DUP2)		**Source: AAB0887-05**				Prepared & Analyzed: 02/28/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Batch 7030016 - SM 2540 C											
Blank (7030016-BLK1)						Prepared & Analyzed: 03/01/17					
Total Dissolved Solids	ND	25	10	mg/L							

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March 07, 2017

Report No.: AAB0887

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030016 - SM 2540 C											
LCS (7030016-BS1)						Prepared & Analyzed: 03/01/17					
Total Dissolved Solids	348	25	10	mg/L	400.00		87	84-108			
Duplicate (7030016-DUP1)			**Source: AAB0887-03RE1**			Prepared & Analyzed: 03/01/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030131 - EPA 300.0											
Blank (7030131-BLK1)						Prepared: 03/03/17 Analyzed: 03/04/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7030131-BS1)						Prepared: 03/03/17 Analyzed: 03/04/17					
Chloride	9.70	0.25	0.01	mg/L	10.010		97	90-110			
Fluoride	10.1	0.30	0.004	mg/L	10.020		101	90-110			
Sulfate	9.86	1.0	0.09	mg/L	10.020		98	90-110			
Matrix Spike (7030131-MS1)		**Source: AAB0887-06**				Prepared: 03/03/17 Analyzed: 03/04/17					
Chloride	16.2	0.25	0.01	mg/L	10.010	6.48	97	90-110			
Fluoride	10.2	0.30	0.004	mg/L	10.020	0.04	102	90-110			
Sulfate	51.8	1.0	0.09	mg/L	10.020	47.3	44	90-110			QM-02
Matrix Spike Dup (7030131-MSD1)		**Source: AAB0887-06**				Prepared: 03/03/17 Analyzed: 03/04/17					
Chloride	16.2	0.25	0.01	mg/L	10.010	6.48	97	90-110	0	15	
Fluoride	10.2	0.30	0.004	mg/L	10.020	0.04	102	90-110	0.05	15	
Sulfate	51.8	1.0	0.09	mg/L	10.020	47.3	44	90-110	0.004	15	QM-02

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March 07, 2017

Report No.: AAB0887

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020811 - EPA 3005A											
Blank (7020811-BLK1)						Prepared: 02/27/17 Analyzed: 03/02/17					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (7020811-BS1)						Prepared: 02/27/17 Analyzed: 03/02/17					
Antimony	0.111	0.0030	0.0008	mg/L	0.10000		111	80-120			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000		100	80-120			
Barium	0.104	0.0100	0.0004	mg/L	0.10000		104	80-120			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000		104	80-120			
Boron	1.07	0.0400	0.0064	mg/L	1.0000		107	80-120			
Cadmium	0.106	0.0010	0.00007	mg/L	0.10000		106	80-120			
Calcium	0.944	0.500	0.0311	mg/L	1.0000		94	80-120			
Chromium	0.103	0.0100	0.0009	mg/L	0.10000		103	80-120			
Cobalt	0.0998	0.0100	0.0005	mg/L	0.10000		100	80-120			
Copper	0.102	0.0250	0.0005	mg/L	0.10000		102	80-120			
Lead	0.101	0.0050	0.0001	mg/L	0.10000		101	80-120			
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000		105	80-120			
Nickel	0.103	0.0100	0.0006	mg/L	0.10000		103	80-120			
Selenium	0.0967	0.0100	0.0010	mg/L	0.10000		97	80-120			
Silver	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Thallium	0.105	0.0010	0.0002	mg/L	0.10000		105	80-120			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000		103	80-120			
Zinc	0.104	0.0100	0.0021	mg/L	0.10000		104	80-120			
Lithium	0.104	0.0500	0.0021	mg/L	0.10000		104	80-120			

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020811 - EPA 3005A											
Matrix Spike (7020811-MS1)		**Source: AAB0887-01**				Prepared: 02/27/17 Analyzed: 03/02/17					
Antimony	0.112	0.0030	0.0008	mg/L	0.10000	ND	112	75-125			
Arsenic	0.0984	0.0050	0.0016	mg/L	0.10000	ND	98	75-125			
Barium	0.163	0.0100	0.0004	mg/L	0.10000	0.0607	102	75-125			
Beryllium	0.0962	0.0030	0.00008	mg/L	0.10000	ND	96	75-125			
Boron	0.987	0.0400	0.0064	mg/L	1.0000	ND	99	75-125			
Cadmium	0.106	0.0010	0.00007	mg/L	0.10000	ND	106	75-125			
Calcium	12.2	2.50	0.155	mg/L	1.0000	10.4	182	75-125			QM-02
Chromium	0.107	0.0100	0.0009	mg/L	0.10000	ND	107	75-125			
Cobalt	0.107	0.0100	0.0005	mg/L	0.10000	0.0049	102	75-125			
Copper	0.105	0.0250	0.0005	mg/L	0.10000	0.0011	104	75-125			
Lead	0.102	0.0050	0.0001	mg/L	0.10000	ND	102	75-125			
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000	ND	105	75-125			
Nickel	0.111	0.0100	0.0006	mg/L	0.10000	0.0051	106	75-125			
Selenium	0.0995	0.0100	0.0010	mg/L	0.10000	ND	99	75-125			
Silver	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000	ND	104	75-125			
Vanadium	0.107	0.0100	0.0071	mg/L	0.10000	ND	107	75-125			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	0.0042	102	75-125			
Lithium	0.0941	0.0500	0.0021	mg/L	0.10000	ND	94	75-125			
Matrix Spike Dup (7020811-MSD1)		**Source: AAB0887-01**				Prepared: 02/27/17 Analyzed: 03/02/17					
Antimony	0.109	0.0030	0.0008	mg/L	0.10000	ND	109	75-125	3	20	
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125	4	20	
Barium	0.158	0.0100	0.0004	mg/L	0.10000	0.0607	97	75-125	3	20	
Beryllium	0.103	0.0030	0.00008	mg/L	0.10000	ND	103	75-125	7	20	
Boron	0.990	0.0400	0.0064	mg/L	1.0000	ND	99	75-125	0.3	20	
Cadmium	0.104	0.0010	0.00007	mg/L	0.10000	ND	104	75-125	2	20	
Calcium	11.6	2.50	0.155	mg/L	1.0000	10.4	121	75-125	5	20	
Chromium	0.101	0.0100	0.0009	mg/L	0.10000	ND	101	75-125	5	20	
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000	0.0049	100	75-125	2	20	
Copper	0.106	0.0250	0.0005	mg/L	0.10000	0.0011	105	75-125	1	20	
Lead	0.103	0.0050	0.0001	mg/L	0.10000	ND	103	75-125	0.2	20	
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000	ND	104	75-125	1	20	
Nickel	0.107	0.0100	0.0006	mg/L	0.10000	0.0051	102	75-125	3	20	
Selenium	0.100	0.0100	0.0010	mg/L	0.10000	ND	100	75-125	0.6	20	
Silver	0.0985	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	4	20	
Thallium	0.104	0.0010	0.0002	mg/L	0.10000	ND	104	75-125	0.6	20	
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125	4	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0042	101	75-125	0.5	20	
Lithium	0.0979	0.0500	0.0021	mg/L	0.10000	ND	98	75-125	4	20	

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020811 - EPA 3005A											
Post Spike (7020811-PS1)			**Source: AAB0887-01**			Prepared: 02/27/17 Analyzed: 03/02/17					
Antimony	108			ug/L	100.00	0.0232	108	80-120			
Arsenic	108			ug/L	100.00	0.317	108	80-120			
Barium	166			ug/L	100.00	60.7	105	80-120			
Beryllium	104			ug/L	100.00	0.0030	104	80-120			
Boron	1020			ug/L	1000.0	3.84	102	80-120			
Cadmium	106			ug/L	100.00	0.0155	105	80-120			
Calcium	19300			ug/L	1000.0	10400	889	80-120			QM-02
Chromium	105			ug/L	100.00	0.517	105	80-120			
Cobalt	107			ug/L	100.00	4.88	102	80-120			
Copper	109			ug/L	100.00	1.11	108	80-120			
Lead	105			ug/L	100.00	0.0384	105	80-120			
Molybdenum	110			ug/L	100.00	0.474	109	80-120			
Nickel	111			ug/L	100.00	5.12	106	80-120			
Selenium	105			ug/L	100.00	0.256	105	80-120			
Silver	104			ug/L	100.00	0.0008	104	80-120			
Thallium	106			ug/L	100.00	0.0613	106	80-120			
Vanadium	110			ug/L	100.00	2.49	108	80-120			
Zinc	114			ug/L	100.00	4.24	109	80-120			
Lithium	102			ug/L	100.00	1.34	101	80-120			
Batch 7020822 - EPA 7470A											
Blank (7020822-BLK1)						Prepared & Analyzed: 02/28/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7020822-BS1)						Prepared & Analyzed: 02/28/17					
Mercury	0.00247	0.00050	0.000041	mg/L	2.5000E-3		99	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020822 - EPA 7470A											
Matrix Spike (7020822-MS1)			**Source: AAB0885-01**			Prepared & Analyzed: 02/28/17					
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3	ND	97	75-125			
Matrix Spike Dup (7020822-MSD1)			**Source: AAB0885-01**			Prepared & Analyzed: 02/28/17					
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125	2	20	
Post Spike (7020822-PS1)			**Source: AAB0885-01**			Prepared & Analyzed: 02/28/17					
Mercury	1.76			ug/L	1.6667	-0.00567	106	80-120			
Batch 7020867 - EPA 3005A											
Blank (7020867-BLK1)						Prepared: 03/01/17 Analyzed: 03/03/17					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							

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Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020867 - EPA 3005A											
LCS (7020867-BS1)						Prepared: 03/01/17 Analyzed: 03/03/17					
Antimony	0.112	0.0030	0.0008	mg/L	0.10000		112	80-120			
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000		105	80-120			
Barium	0.107	0.0100	0.0004	mg/L	0.10000		107	80-120			
Beryllium	0.0972	0.0030	0.00008	mg/L	0.10000		97	80-120			
Boron	1.00	0.0400	0.0064	mg/L	1.0000		100	80-120			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000		105	80-120			
Calcium	1.00	0.500	0.0311	mg/L	1.0000		100	80-120			
Chromium	0.0948	0.0100	0.0009	mg/L	0.10000		95	80-120			
Cobalt	0.0949	0.0100	0.0005	mg/L	0.10000		95	80-120			
Copper	0.0948	0.0250	0.0005	mg/L	0.10000		95	80-120			
Lead	0.105	0.0050	0.0001	mg/L	0.10000		105	80-120			
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000		104	80-120			
Nickel	0.0946	0.0100	0.0006	mg/L	0.10000		95	80-120			
Selenium	0.109	0.0100	0.0010	mg/L	0.10000		109	80-120			
Silver	0.106	0.0100	0.0005	mg/L	0.10000		106	80-120			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000		104	80-120			
Vanadium	0.0975	0.0100	0.0071	mg/L	0.10000		98	80-120			
Zinc	0.0982	0.0100	0.0021	mg/L	0.10000		98	80-120			
Lithium	0.0924	0.0500	0.0021	mg/L	0.10000		92	80-120			
Matrix Spike (7020867-MS1)		**Source: AAB0887-02**				Prepared: 03/01/17 Analyzed: 03/03/17					
Antimony	0.111	0.0030	0.0008	mg/L	0.10000	ND	111	75-125			
Arsenic	0.106	0.0050	0.0016	mg/L	0.10000	ND	106	75-125			
Barium	0.155	0.0100	0.0004	mg/L	0.10000	0.0481	107	75-125			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125			
Boron	1.01	0.0400	0.0064	mg/L	1.0000	0.0192	99	75-125			
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	17.1	2.50	0.155	mg/L	1.0000	16.2	91	75-125			
Chromium	0.0999	0.0100	0.0009	mg/L	0.10000	ND	100	75-125			
Cobalt	0.116	0.0100	0.0005	mg/L	0.10000	0.0184	98	75-125			
Copper	0.0938	0.0250	0.0005	mg/L	0.10000	ND	94	75-125			
Lead	0.104	0.0050	0.0001	mg/L	0.10000	ND	104	75-125			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000	ND	103	75-125			
Nickel	0.0983	0.0100	0.0006	mg/L	0.10000	0.0009	97	75-125			
Selenium	0.111	0.0100	0.0010	mg/L	0.10000	0.0015	109	75-125			
Silver	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000	ND	104	75-125			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125			
Zinc	0.100	0.0100	0.0021	mg/L	0.10000	0.0024	98	75-125			
Lithium	0.0908	0.0500	0.0021	mg/L	0.10000	0.0036	87	75-125			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Report No.: AAB0887

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020867 - EPA 3005A											
Matrix Spike Dup (7020867-MSD1)		**Source: AAB0887-02**			Prepared: 03/01/17 Analyzed: 03/03/17						
Antimony	0.109	0.0030	0.0008	mg/L	0.10000	ND	109	75-125	2	20	
Arsenic	0.103	0.0050	0.0016	mg/L	0.10000	ND	103	75-125	3	20	
Barium	0.152	0.0100	0.0004	mg/L	0.10000	0.0481	104	75-125	2	20	
Beryllium	0.0985	0.0030	0.00008	mg/L	0.10000	ND	99	75-125	3	20	
Boron	0.956	0.0400	0.0064	mg/L	1.0000	0.0192	94	75-125	6	20	
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000	ND	103	75-125	0.4	20	
Calcium	16.6	2.50	0.155	mg/L	1.0000	16.2	43	75-125	3	20	QM-02
Chromium	0.101	0.0100	0.0009	mg/L	0.10000	ND	101	75-125	1	20	
Cobalt	0.118	0.0100	0.0005	mg/L	0.10000	0.0184	99	75-125	1	20	
Copper	0.0995	0.0250	0.0005	mg/L	0.10000	ND	100	75-125	6	20	
Lead	0.104	0.0050	0.0001	mg/L	0.10000	ND	104	75-125	0.4	20	
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000	ND	103	75-125	0.7	20	
Nickel	0.100	0.0100	0.0006	mg/L	0.10000	0.0009	100	75-125	2	20	
Selenium	0.108	0.0100	0.0010	mg/L	0.10000	0.0015	107	75-125	2	20	
Silver	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125	0.09	20	
Thallium	0.103	0.0010	0.0002	mg/L	0.10000	ND	103	75-125	0.9	20	
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125	0.1	20	
Zinc	0.103	0.0100	0.0021	mg/L	0.10000	0.0024	100	75-125	3	20	
Lithium	0.0973	0.0500	0.0021	mg/L	0.10000	0.0036	94	75-125	7	20	
Post Spike (7020867-PS1)		**Source: AAB0887-02**			Prepared: 03/01/17 Analyzed: 03/03/17						
Antimony	104			ug/L	100.00	0.275	104	80-120			
Arsenic	103			ug/L	100.00	0.126	103	80-120			
Barium	156			ug/L	100.00	48.1	108	80-120			
Beryllium	98.8			ug/L	100.00	0.0636	99	80-120			
Boron	983			ug/L	1000.0	19.2	96	80-120			
Cadmium	101			ug/L	100.00	0.0628	100	80-120			
Calcium	16500			ug/L	1000.0	16200	33	80-120			QM-02
Chromium	100			ug/L	100.00	0.425	100	80-120			
Cobalt	117			ug/L	100.00	18.4	98	80-120			
Copper	97.2			ug/L	100.00	0.447	97	80-120			
Lead	103			ug/L	100.00	0.0773	103	80-120			
Molybdenum	105			ug/L	100.00	0.148	105	80-120			
Nickel	96.2			ug/L	100.00	0.867	95	80-120			
Selenium	107			ug/L	100.00	1.45	106	80-120			
Silver	105			ug/L	100.00	0.0205	105	80-120			
Thallium	103			ug/L	100.00	0.0214	103	80-120			
Vanadium	102			ug/L	100.00	1.40	101	80-120			
Zinc	99.1			ug/L	100.00	2.39	97	80-120			
Lithium	101			ug/L	100.00	3.59	97	80-120			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 07, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR & Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE M-DD-YY	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
	CONTAINER TYPE:						P	P	P		
	PRESERVATION:						3	7	3		
2-22-17	1120	GW		✓	GWA-2	4	1	1	2	1	
2-22-17	1425	GW		✓	GWC-2R	4	1	1	2	2	
2-22-17	1505	W		✓	EB-1-2-22-17	4	1	1	2	3	
2-23-17	1040	GW		✓	GWC-6R	4	1	1	2	4	
2-23-17	1230	W		✓	FB-1-2-23-17	4	1	1	2	5	
2-23-17	1330	GW		✓	GWC-3R	~~6~~ 4	1	1	~~2~~ 4	6	extra Rad here
2-23-17	1355	GW		✓	GWC-1R	4	1	1	2	7	
2-24-17	1006	GW		✓	GWC-4R	4	1	1	2	8	
2-24-17	1150	GW		✓	GWC-5R	4	1	1	2	9	
										10	
2-23-17	—	GW		✓	DUP-1	4	1	1	2		

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:
DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: C. Parker, B. Walker (ACC) — DATE/TIME: 2-24-17 1240

RELINQUISHED BY: [signature] — DATE/TIME: 2-24-17 1530

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: Mahman — DATE/TIME: 02/24/17 1530

pH checked: No NA — Ice: (Yes) No NA — Temperature: 1°C Min: 4°C Max:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (CLIENT) OTHER FS

Custody Seal: Intact Broken Not Present — # of Coolers: — Cooler ID:

FOR LAB USE ONLY
LAB #: AA80887
Entered into LIMS: MR
Tracking #:

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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LOG-IN CHECKLIST **Printed: 2/27/2017 10:27:23AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 02/24/17 15:30

Work Order: AAB0887
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 10 **#Containers:** 42

Minimum Temp(C): 4.0 **Maximum Temp(C):** 4.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

March 21, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAB0887 Plant Yates
Pace Project No.: 30211898

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on February 27, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: AAB0887 Plant Yates
Pace Project No.: 30211898

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
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Greensburg, PA 15601
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SAMPLE SUMMARY

Project: AAB0887 Plant Yates
Pace Project No.: 30211898

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30211898001	**GWA-2**	Water	02/22/17 11:20	02/27/17 09:40
30211898002	**GWC-2R**	Water	02/22/17 14:25	02/27/17 09:40
30211898003	**EB-1-2-22-17**	Water	02/22/17 15:05	02/27/17 09:40
30211898004	**GWC-6R**	Water	02/23/17 10:40	02/27/17 09:40
30211898005	**FB-1-2-23-17**	Water	02/23/17 12:30	02/27/17 09:40
30211898006	**GWC-3R**	Water	02/23/17 13:30	02/27/17 09:40
30211898007	**GWC-1R**	Water	02/23/17 13:55	02/27/17 09:40
30211898008	**GWC-4R**	Water	02/24/17 10:00	02/27/17 09:40
30211898009	**GWC-5R**	Water	02/24/17 11:50	02/27/17 09:40
30211898010	**Dup-1**	Water	02/23/17 00:00	02/27/17 09:40

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SAMPLE ANALYTE COUNT

Project: AAB0887 Plant Yates
Pace Project No.: 30211898

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30211898001	**GWA-2**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30211898002	**GWC-2R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30211898003	**EB-1-2-22-17**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30211898004	**GWC-6R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30211898005	**FB-1-2-23-17**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30211898006	**GWC-3R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30211898007	**GWC-1R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30211898008	**GWC-4R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30211898009	**GWC-5R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30211898010	**Dup-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

Pace Analytical Services, LLC
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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAB0887 Plant Yates
Pace Project No.: 30211898

Sample: GWA-2 **Lab ID: 30211898001** Collected: 02/22/17 11:20 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.207 ± 0.133 (0.207) C:86% T:NA**	pCi/L	03/20/17 08:34	13982-63-3	
Radium-228	EPA 9320	**0.850 ± 0.729 (1.47) C:37% T:86%**	pCi/L	03/17/17 17:04	15262-20-1	1c
Total Radium	Total Radium Calculation	**1.06 ± 0.862 (1.68)**	pCi/L	03/21/17 16:35	7440-14-4	

Sample: GWC-2R **Lab ID: 30211898002** Collected: 02/22/17 14:25 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.256 ± 0.137 (0.189) C:97% T:NA**	pCi/L	03/20/17 08:34	13982-63-3	
Radium-228	EPA 9320	**0.483 ± 0.814 (1.77) C:38% T:70%**	pCi/L	03/17/17 17:04	15262-20-1	1c
Total Radium	Total Radium Calculation	**0.739 ± 0.951 (1.96)**	pCi/L	03/21/17 16:35	7440-14-4	

Sample: EB-1-2-22-17 **Lab ID: 30211898003** Collected: 02/22/17 15:05 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0593 ± 0.0813 (0.170) C:95% T:NA**	pCi/L	03/20/17 08:35	13982-63-3	
Radium-228	EPA 9320	**0.258 ± 0.829 (1.87) C:32% T:79%**	pCi/L	03/17/17 17:04	15262-20-1	1c
Total Radium	Total Radium Calculation	**0.317 ± 0.910 (2.04)**	pCi/L	03/21/17 16:35	7440-14-4	

Sample: GWC-6R **Lab ID: 30211898004** Collected: 02/23/17 10:40 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0686 ± 0.0965 (0.207) C:99% T:NA**	pCi/L	03/20/17 08:35	13982-63-3	
Radium-228	EPA 9320	**1.11 ± 0.996 (2.02) C:30% T:79%**	pCi/L	03/17/17 17:04	15262-20-1	1c
Total Radium	Total Radium Calculation	**1.18 ± 1.09 (2.23)**	pCi/L	03/21/17 16:35	7440-14-4	

Sample: FB-1-2-23-17 **Lab ID: 30211898005** Collected: 02/23/17 12:30 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0144 ± 0.0747 (0.197) C:89% T:NA**	pCi/L	03/20/17 08:35	13982-63-3	
Radium-228	EPA 9320	**0.220 ± 0.754 (1.71) C:34% T:75%**	pCi/L	03/17/17 17:04	15262-20-1	1c

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAB0887 Plant Yates
Pace Project No.: 30211898

Sample: FB-1-2-23-17 **Lab ID: 30211898005** Collected: 02/23/17 12:30 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.234 ± 0.829 (1.91)**	pCi/L	03/21/17 16:35	7440-14-4	

Sample: GWC-3R **Lab ID: 30211898006** Collected: 02/23/17 13:30 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0563 ± 0.102 (0.233) C:74% T:NA**	pCi/L	03/20/17 08:35	13982-63-3	
Radium-228	EPA 9320	**0.672 ± 0.682 (1.40) C:36% T:81%**	pCi/L	03/17/17 17:02	15262-20-1	1c
Total Radium	Total Radium Calculation	**0.728 ± 0.784 (1.63)**	pCi/L	03/21/17 16:35	7440-14-4	

Sample: GWC-1R **Lab ID: 30211898007** Collected: 02/23/17 13:55 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0430 ± 0.0840 (0.194) C:97% T:NA**	pCi/L	03/20/17 08:35	13982-63-3	
Radium-228	EPA 9320	**0.461 ± 0.638 (1.37) C:46% T:76%**	pCi/L	03/17/17 17:03	15262-20-1	1c
Total Radium	Total Radium Calculation	**0.504 ± 0.722 (1.56)**	pCi/L	03/21/17 16:35	7440-14-4	

Sample: GWC-4R **Lab ID: 30211898008** Collected: 02/24/17 10:00 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.141 ± 0.137 (0.273) C:90% T:NA**	pCi/L	03/20/17 08:35	13982-63-3	
Radium-228	EPA 9320	**0.164 ± 0.589 (1.34) C:38% T:76%**	pCi/L	03/17/17 17:02	15262-20-1	1c
Total Radium	Total Radium Calculation	**0.305 ± 0.726 (1.61)**	pCi/L	03/21/17 16:35	7440-14-4	

Sample: GWC-5R **Lab ID: 30211898009** Collected: 02/24/17 11:50 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0978 ± 0.102 (0.200) C:94% T:NA**	pCi/L	03/20/17 08:35	13982-63-3	
Radium-228	EPA 9320	**0.389 ± 0.598 (1.29) C:40% T:85%**	pCi/L	03/17/17 17:02	15262-20-1	1c
Total Radium	Total Radium Calculation	**0.487 ± 0.700 (1.49)**	pCi/L	03/21/17 16:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAB0887 Plant Yates
Pace Project No.: 30211898

Sample: Dup-1 **Lab ID: 30211898010** Collected: 02/23/17 00:00 Received: 02/27/17 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.150 ± 0.107 (0.170) C:100% T:NA**	pCi/L	03/20/17 08:35	13982-63-3	
Radium-228	EPA 9320	**1.01 ± 0.773 (1.50) C:35% T:81%**	pCi/L	03/17/17 17:14	15262-20-1	1c
Total Radium	Total Radium Calculation	**1.16 ± 0.880 (1.67)**	pCi/L	03/21/17 16:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAB0887 Plant Yates
Pace Project No.: 30211898

QC Batch: 251730 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30211898001, 30211898002, 30211898003, 30211898004, 30211898005, 30211898006, 30211898007, 30211898008, 30211898009, 30211898010

METHOD BLANK: 1238368 Matrix: Water
Associated Lab Samples: 30211898001, 30211898002, 30211898003, 30211898004, 30211898005, 30211898006, 30211898007, 30211898008, 30211898009, 30211898010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0746 ± 0.0820 (0.155) C:90% T:NA	pCi/L	03/20/17 08:53	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAB0887 Plant Yates
Pace Project No.: 30211898

QC Batch: 251826 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30211898001, 30211898002, 30211898003, 30211898004, 30211898005, 30211898006, 30211898007, 30211898008, 30211898009, 30211898010

METHOD BLANK: 1238972 Matrix: Water
Associated Lab Samples: 30211898001, 30211898002, 30211898003, 30211898004, 30211898005, 30211898006, 30211898007, 30211898008, 30211898009, 30211898010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	1.30 ± 0.578 (0.877) C:37% T:82%	pCi/L	03/17/17 16:51	1c,2c

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: AAB0887 Plant Yates
Pace Project No.: 30211898

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 251826

[1] The Ra-228 LCS recovery is high and outside of the default acceptance limit for LCS recovery at 136.77%. The upper limit for Ra-228 LCS recovery is 136%. Samples with results below their associated MDC are reportable without qualification.

ANALYTE QUALIFIERS

1c The Ra-228 LCS recovery is high and outside of the default acceptance limit for LCS recovery at 136.77%. The upper limit for Ra-228 LCS recovery is 136%. Samples with results below their associated MDC are reportable without qualification.

2c The Ra-228 MB result is above the associated MDC and RL of 1.0 pCi/L. Sample results are reportable without qualification if they are below their associated MDC. The MB is has been re-ingrowthed and is being re-analyzed on 3/22/2017, along with samples with results greater than their associated MDC.

Chain of Custody

Pace Analytical
www.pacelabs.com

BMD 2/24/2017

Workorder: AAB0887 Workorder Name: Plant ~~Branch~~ Yates Owner Received Date: Results Requested By: 3/20/2017

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

WO#:30211898

30211898

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWA-2	G	2/22/2017 11:20	AAB0887-01	GW	2	X	001
2	GWC-2R	G	2/22/2017 14:25	AAB0887-02	GW	2	X	002
3	EB-1-2-22-17	G	2/22/2017 15:05	AAB0887-03	W	2	X	003
4	GWC-6R	G	2/23/2017 10:40	AAB0887-04	GW	2	X	004
5	FB-1-2-23-17	G	2/23/2017 12:30	AAB0887-05	W	2	X	005
6	GWC-3R	G	2/23/2017 13:30	AAB0887-06	GW	2	X	006
7	GWC-1R	G	2/23/2017 13:55	AAB0887-07	GW	2	X	007
8	GWC-4R	G	2/24/2017 10:00	AAB0887-08	GW	2	X	008
9	GWC-5R	G	2/24/2017 11:50	AAB0887-09	GW	2	X	009
10	Dup-1	G	2/23/2017 0:00	AAB0887-10	GW	2	X	010

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			[illegible] Pace	2/27/17 0940	
2					
3					

Cooler Temperature on Receipt N/A °C | **Custody Seal Y or (N)** | **Received on Ice Y or (N)** | **Sample Intact (Y) or N**

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Condition Upon Receipt Pittsburgh

Face Analytical

Client Name: Pace GA 30211898 RTB Project #

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 6812 5102 6051

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: RTB 2/27/17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X	X		3. jw 2/28/17
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation. All containers needing preservation are found to be in compliance with EPA recommendation.	X			15. pH<2
	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed 2/27/17 RTB; Date/time of preservation; Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:			X	17.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: RTB Date: 2/27/17

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

30211898

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR & Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE mm-dd-yy	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)	Cl, F, SO4, & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)							LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:								P	P	P								
PRESERVATION:								3	7	3								
2-22-17	1120	GW		✓	GWA-2	4		1	1	2							1	
2-22-17	1425	GW		✓	GWC-2R	4		1	1	2							2	
2-22-17	1505	W		✓	EB-1-2-22-17	4		1	1	2							3	
2-23-17	1040	GW		✓	GWC-6R	4		1	1	2							4	
2-23-17	1230	W		✓	FB-1-2-23-17	4		1	1	2							5	
2-23-17	1330	GW		✓	GWC-3R	~~6~~ 4		1	1	~~4~~ 2							6	extra Rad here
2-23-17	1355	GW		✓	GWC-1R	4		1	1	2							7	
2-24-17	1000	GW		✓	GWC-4R	4		1	1	2							8	
2-24-17	1150	GW		✓	GWC-5R	4		1	1	2							9	
2-23-17	—	GW		✓	DUP-1	4		1	1	2							10	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: C. Parker, R. Walker (Acc)
DATE/TIME: 2-24-17 1240
RELINQUISHED BY: [signature]
DATE/TIME: 2-24-17 1550
RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:
RECEIVED BY LAB: MLamman
DATE/TIME: 02/24/17 1530
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
pH checked: Yes No NA
Ice: Yes No NA
Temperature: 1°C Min: 4°C Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AA80887
Entered into LIMS: MR
Tracking #:

Plant Yates_COC Gypsum Storage.xlsx

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	3/15/2017
Worklist:	34494
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1238368
MB concentration:	0.075
M/B Counting Uncertainty:	0.081
MB MDC:	0.155
MB Numerical Performance Indicator:	1.80
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS34494	**LCSD34494**
Count Date:	3/20/2017	
Spike I.D.:	17-003	
Spike Concentration (pCi/mL):	38.230	
Volume Used (mL):	0.25	
Aliquot Volume (L, g, F):	0.509	
Target Conc. (pCi/L, g, F):	18.761	
Uncertainty (Calculated):	0.883	
Result (pCi/L, g, F):	15.336	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.861	
Numerical Performance Indicator:	-5.45	
Percent Recovery:	81.74%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment

Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment

Sample I.D.:	30211896002	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30211896002DUP	
Sample Result (pCi/L, g, F):	0.438	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.154	
Sample Duplicate Result (pCi/L, g, F):	0.382	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.152	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	0.511	30211896002
Duplicate RPD:	13.76%	30211896002DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	3/14/2017
Worklist:	34512
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1238972
MB concentration:	1.303
M/B Counting Uncertainty:	0.529
MB MDC:	0.877
MB Numerical Performance Indicator:	4.83
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Fail*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS34512	LCSD34512
Count Date:	3/17/2017	3/17/2017
Spike I.D.:	17-005	17-005
Spike Concentration (pCi/mL):	25.015	25.015
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.811	0.830
Target Conc. (pCi/L, g, F):	6.167	6.029
Uncertainty (Calculated):	0.444	0.434
Result (pCi/L, g, F):	8.435	6.718
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.366	1.109
Numerical Performance Indicator:	3.09	1.13
Percent Recovery:	136.77%	111.43%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Fail High**	Pass

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS34512	
Duplicate Sample I.D.	LCSD34512	
Sample Result (pCi/L, g, F):	8.435	
Sample Result Counting Uncertainty (pCi/L, g, F):	1.366	
Sample Duplicate Result (pCi/L, g, F):	6.718	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.109	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	1.913	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	20.42%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

**If all sample results are below MDC, the batch is acceptable, otherwise this batch must be reprepped due to LCS failure.

3/21/17

Product Name: Low-Flow System

Date: 2017-02-22 11:20:02

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.375 in
Site Name	Plant Yates Gypsum	Tubing Length	53 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	47 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	1.636088 L
Well Total Depth	52.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	11 in
Depth to Water	40.30 ft	Total Volume Pumped	4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:56:42	900.00	17.32	6.36	197.61	2.11	40.90	1.70	36.55
Last 5	11:01:42	1200.00	17.32	6.29	198.26	1.95	41.00	1.13	44.73
Last 5	11:06:42	1500.00	17.32	6.25	198.08	1.83	41.10	0.72	49.63
Last 5	11:11:42	1800.00	17.36	6.23	197.81	1.52	41.20	0.60	53.39
Last 5	11:16:42	2099.99	17.36	6.21	198.23	1.47	41.20	0.57	59.34
Variance 0			0.00	-0.04	-0.17			-0.40	4.90
Variance 1			0.04	-0.01	-0.27			-0.13	3.76
Variance 2			0.00	-0.02	0.41			-0.03	5.95

Notes

Collected at11:20. Cloudy 60s

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-23 13:51:02

Project Information:		Pump Information:	
Operator Name		Pump Model/Type	Peristaltic
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	teflon
Project Name	Plant Yates AP - Phase 2 CCR	Tubing Diameter	.17 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	41 ft
Latitude	33º 27' 55.94"		
Longitude	-84º -53' -53.56"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	3 ft

Well Information:		Pumping Information:	
Well ID	GWC-1R	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	0.2730004 L
Well Total Depth	36.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	13.44 in
Depth to Water	27.52 ft	Total Volume Pumped	16.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:28:47	6300.93	19.45	5.50	769.70	0.87	28.70	6.54	128.90
Last 5	13:33:47	6600.93	18.79	5.49	771.35	0.87	28.70	6.56	128.91
Last 5	13:38:47	6900.92	18.84	5.49	776.14	0.86	28.70	6.52	128.30
Last 5	13:43:47	7200.92	19.06	5.49	774.99	0.72	28.70	6.56	127.86
Last 5	13:48:47	7500.90	18.83	5.50	776.34	0.92	28.70	6.68	127.36
Variance 0			0.05	-0.00	4.80			-0.04	-0.61
Variance 1			0.22	-0.00	-1.16			0.03	-0.44
Variance 2			-0.23	0.01	1.35			0.12	-0.50

Notes

Sunny 70's. Sampled at 13:55.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-22 14:21:46

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	44 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	38.5 ft

Well Information:		Pumping Information:	
Well ID	GWC-2R	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	0.6813906 L
Well Total Depth	43.80 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	31.00 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:58:56	5103.94	17.51	5.48	275.29	5.45	31.20	5.16	110.60
Last 5	14:03:57	5404.94	17.49	5.48	276.40	5.25	31.20	5.17	111.12
Last 5	14:08:57	5704.94	17.47	5.48	277.41	5.11	31.20	5.18	111.28
Last 5	14:13:57	6004.92	17.49	5.48	277.89	4.98	31.20	5.18	111.68
Last 5	14:18:57	6304.92	17.47	5.48	276.99	4.90	31.20	5.18	111.75
Variance 0			-0.02	-0.00	1.01			0.01	0.16
Variance 1			0.02	-0.00	0.49			-0.00	0.40
Variance 2			-0.02	0.00	-0.90			0.00	0.07

Notes

Collected at 14:25. Cloudy 60s. EB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-23 13:27:20

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	39 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	GWC-3R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.6590735 L
Well Total Depth	38.33 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	32.6 ft	Total Volume Pumped	17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:05:57	3899.98	19.50	5.32	164.81	6.24	33.50	6.62	150.94
Last 5	13:10:57	4199.97	19.50	5.28	163.07	5.43	33.50	6.62	151.36
Last 5	13:15:57	4499.97	19.50	5.27	162.91	5.15	33.50	6.63	152.29
Last 5	13:20:57	4799.97	19.43	5.28	160.42	4.92	33.50	6.60	152.37
Last 5	13:25:57	5099.97	19.28	5.28	159.25	4.15	33.50	6.59	152.24
Variance 0			-0.00	-0.01	-0.16			0.01	0.93
Variance 1			-0.08	0.01	-2.49			-0.03	0.08
Variance 2			-0.15	0.00	-1.17			-0.01	-0.13

Notes

Collected at 13:30. Sunny 60s. FB-1 here at 12:30

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-24 09:55:45

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	Peristaltic
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	teflon
Project Name	Plant Yates AP - Phase 2 CCR	Tubing Diameter	.17 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	36 ft
Latitude	33º 28' 2.65"		
Longitude	-84º -54' -0.27"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	3 ft

Well Information:		Pumping Information:	
Well ID	GWC-4R	Final Pumping Rate	135 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	31.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3.72 in
Depth to Water	18.39 ft	Total Volume Pumped	4.05 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:33:35	300.03	19.50	5.48	875.58	3.79	18.70	0.46	112.35
Last 5	09:38:35	600.02	19.28	5.47	845.73	3.47	18.70	0.44	111.98
Last 5	09:43:35	900.00	19.46	5.47	796.91	3.00	18.70	0.41	113.34
Last 5	09:48:35	1200.00	19.55	5.46	796.06	2.23	18.70	0.38	115.14
Last 5	09:53:35	1500.00	19.68	5.47	786.24	2.03	18.70	0.36	116.86
Variance 0			0.18	-0.00	-48.82			-0.03	1.35
Variance 1			0.09	-0.00	-0.85			-0.02	1.80
Variance 2			0.13	0.00	-9.82			-0.03	1.73

Notes

Sunny 60's. Sampled at 10:00.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-24 11:52:00

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	43 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	39 ft

Well Information:		Pumping Information:	
Well ID	GWC-5R	Final Pumping Rate	65 mL/min
Well diameter	2 in	Total System Volume	0.6769272 L
Well Total Depth	42.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5 in
Depth to Water	35.25 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:27:57	7499.92	24.49	5.37	1419.43	6.12	35.70	6.72	135.03
Last 5	11:32:57	7799.92	24.80	5.37	1413.23	5.49	35.70	6.68	134.97
Last 5	11:37:57	8099.92	24.98	5.37	1420.26	5.08	35.70	6.65	135.32
Last 5	11:42:57	8399.89	25.01	5.37	1420.51	4.67	35.70	6.76	135.43
Last 5	11:47:57	8699.89	25.13	5.37	1414.70	4.42	35.70	6.72	135.90
Variance 0			0.18	-0.00	7.03			-0.03	0.35
Variance 1			0.02	-0.00	0.25			0.11	0.10
Variance 2			0.12	0.00	-5.81			-0.04	0.47

Notes

Collected at 11:50. Sunny 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-23 10:43:38

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	52 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	47 ft

Well Information:		Pumping Information:	
Well ID	GWC-6R	Final Pumping Rate	115 mL/min
Well diameter	2 in	Total System Volume	0.717098 L
Well Total Depth	51.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3 in
Depth to Water	39.93 ft	Total Volume Pumped	3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:17:34	300.12	16.27	6.21	780.19	4.30	40.20	5.64	113.00
Last 5	10:22:34	600.03	16.31	6.04	787.09	4.54	40.30	5.63	106.29
Last 5	10:27:34	900.01	16.43	5.99	803.30	4.25	40.30	5.71	103.34
Last 5	10:32:34	1200.01	16.47	5.98	810.14	3.85	40.30	5.72	101.76
Last 5	10:37:34	1500.02	16.47	5.97	814.79	3.12	40.30	5.75	101.11
Variance 0			0.12	-0.05	16.20			0.07	-2.95
Variance 1			0.04	-0.02	6.85			0.01	-1.58
Variance 2			-0.01	-0.01	4.65			0.03	-0.65

Notes

Collected at 10:40. M. cloudy 60s

Grab Samples

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAE0388
May 22, 2017
Project: CCR Event
Project #:Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-2	AAE0388-01	Ground Water	05/08/17 14:35	05/11/17 09:50
GWC-3R	AAE0388-02	Ground Water	05/09/17 11:25	05/11/17 09:50
EB-1-5-9-17	AAE0388-03	Water	05/09/17 13:40	05/11/17 09:50
GWC-1R	AAE0388-04	Ground Water	05/09/17 14:15	05/11/17 09:50
Dup-1	AAE0388-05	Ground Water	05/09/17 00:00	05/11/17 09:50
GWC-5R	AAE0388-06	Ground Water	05/10/17 13:10	05/11/17 09:50
GWC-2R	AAE0388-07	Ground Water	05/10/17 16:15	05/11/17 09:50
GWC-4R	AAE0388-08	Ground Water	05/10/17 18:40	05/11/17 09:50
GWC-6R	AAE0388-09	Ground Water	05/10/17 15:30	05/11/17 09:50
FB-1-5-10-17	AAE0388-10	Water	05/10/17 15:15	05/11/17 09:50

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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May 22, 2017

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: GWA-2
Date/Time Sampled: 5/8/2017 2:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0388-01
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	145	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	4.2	0.25	0.01	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 13:08	7050484	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	05/15/17 09:58	05/15/17 13:08	7050484	RLC
Sulfate	60	2.0	0.18	mg/L	EPA 300.0		2	05/15/17 09:58	05/18/17 19:52	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Barium	0.0650	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Boron	0.0084	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Calcium	14.2	5.00	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/16/17 00:10	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Cobalt	0.0059	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Thallium	0.00006	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Zinc	0.0025	0.0100	0.0013	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Lithium	0.0014	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:04	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:50	7050418	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: GWC-3R
Date/Time Sampled: 5/9/2017 11:25:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0388-02
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	77	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	7.2	0.25	0.01	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 14:10	7050484	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 14:10	7050484	RLC
Sulfate	41	1.0	0.09	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 14:10	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Barium	0.0308	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Beryllium	0.0002	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Boron	0.0077	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Calcium	3.56	0.500	0.0104	mg/L	EPA 6020B	B-01	1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Chromium	0.0016	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Zinc	0.0025	0.0100	0.0013	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:16	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 12:20	05/15/17 17:30	7050419	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: EB-1-5-9-17
Date/Time Sampled: 5/9/2017 1:40:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0388-03
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	05/15/17 18:30	05/15/17 18:30	7050492	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 14:31	7050484	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 14:31	7050484	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 14:31	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Calcium	0.0574	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Chromium	0.0003	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Zinc	ND	0.0100	0.0013	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:39	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 12:20	05/15/17 17:32	7050419	MTC

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: GWC-1R
Date/Time Sampled: 5/9/2017 2:15:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0388-04
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	410	25	10	mg/L	SM 2540 C		1	05/15/17 18:30	05/15/17 18:30	7050492	JPT
Inorganic Anions											
Chloride	16	0.25	0.01	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 14:52	7050484	RLC
Fluoride	0.06	0.30	0.004	mg/L	EPA 300.0	J	1	05/15/17 09:58	05/15/17 14:52	7050484	RLC
Sulfate	280	20	1.8	mg/L	EPA 300.0		20	05/15/17 09:58	05/18/17 21:35	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Arsenic	0.0005	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Barium	0.0463	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Beryllium	0.00008	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Boron	0.0097	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Calcium	47.4	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/19/17 17:24	7050449	CSW
Chromium	0.0011	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Selenium	0.0066	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Zinc	0.0016	0.0100	0.0013	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Lithium	0.0020	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 00:50	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 12:20	05/15/17 17:34	7050419	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: Dup-1
Date/Time Sampled: 5/9/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0388-05
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	65	25	10	mg/L	SM 2540 C		1	05/15/17 18:30	05/15/17 18:30	7050492	JPT
Inorganic Anions											
Chloride	7.5	0.25	0.01	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 15:12	7050484	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 15:12	7050484	RLC
Sulfate	42	1.0	0.09	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 15:12	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Barium	0.0298	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Beryllium	0.0002	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Calcium	3.47	0.500	0.0104	mg/L	EPA 6020B	B-01	1	05/12/17 12:00	05/19/17 17:29	7050449	CSW
Chromium	0.0013	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Selenium	0.0018	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Zinc	0.0019	0.0100	0.0013	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:02	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 12:20	05/15/17 17:37	7050419	MTC

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: GWC-5R
Date/Time Sampled: 5/10/2017 1:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0388-06
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1360	25	10	mg/L	SM 2540 C		1	05/15/17 18:30	05/15/17 18:30	7050492	JPT
Inorganic Anions											
Chloride	4.5	0.25	0.01	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 15:33	7050484	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 15:33	7050484	RLC
Sulfate	1000	50	4.6	mg/L	EPA 300.0		50	05/15/17 09:58	05/18/17 21:56	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Arsenic	0.0011	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Barium	0.0363	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Beryllium	0.0003	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Boron	0.0068	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Cadmium	0.0003	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Calcium	136	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/19/17 17:35	7050449	CSW
Chromium	0.0024	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Selenium	0.0152	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Zinc	0.0042	0.0100	0.0013	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:13	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 12:20	05/15/17 17:39	7050419	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: GWC-2R
Date/Time Sampled: 5/10/2017 4:15:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0388-07
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	149	25	10	mg/L	SM 2540 C		1	05/15/17 18:30	05/15/17 18:30	7050492	JPT
Inorganic Anions											
Chloride	7.1	0.25	0.01	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 15:54	7050484	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	05/15/17 09:58	05/15/17 15:54	7050484	RLC
Sulfate	80	5.0	0.46	mg/L	EPA 300.0		5	05/15/17 09:58	05/18/17 22:17	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Barium	0.0563	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Boron	0.0179	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Calcium	11.8	5.00	0.104	mg/L	EPA 6020B	B-01	10	05/12/17 12:00	05/19/17 17:41	7050449	CSW
Chromium	0.0008	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Cobalt	0.0213	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Selenium	0.0016	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Zinc	0.0022	0.0100	0.0013	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Lithium	0.0035	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:24	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 12:20	05/15/17 17:42	7050419	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: GWC-4R
Date/Time Sampled: 5/10/2017 6:40:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0388-08
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	251	25	10	mg/L	SM 2540 C		1	05/15/17 18:30	05/15/17 18:30	7050492	JPT
Inorganic Anions											
Chloride	71	1.2	0.06	mg/L	EPA 300.0		5	05/15/17 09:58	05/18/17 22:37	7050484	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	05/15/17 09:58	05/15/17 17:58	7050484	RLC
Sulfate	70	5.0	0.46	mg/L	EPA 300.0		5	05/15/17 09:58	05/18/17 22:37	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Barium	0.0182	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/19/17 17:52	7050449	CSW
Boron	1.22	0.400	0.0604	mg/L	EPA 6020B		10	05/12/17 12:00	05/19/17 17:47	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Calcium	17.0	5.00	0.104	mg/L	EPA 6020B	B-01	10	05/12/17 12:00	05/19/17 17:47	7050449	CSW
Chromium	0.0007	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Selenium	0.0054	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Zinc	0.0014	0.0100	0.0013	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:47	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 12:20	05/15/17 17:44	7050419	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: GWC-6R
Date/Time Sampled: 5/10/2017 3:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0388-09
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	955	25	10	mg/L	SM 2540 C		1	05/15/17 18:30	05/15/17 18:30	7050492	JPT
Inorganic Anions											
Chloride	3.9	0.25	0.01	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 18:18	7050484	RLC
Fluoride	0.02	0.30	0.004	mg/L	EPA 300.0	J	1	05/15/17 09:58	05/15/17 18:18	7050484	RLC
Sulfate	660	50	4.6	mg/L	EPA 300.0		50	05/15/17 09:58	05/18/17 22:58	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Barium	0.0873	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/19/17 18:09	7050449	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Calcium	105	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/19/17 18:15	7050449	CSW
Chromium	0.0015	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Selenium	0.0023	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Zinc	0.0027	0.0100	0.0013	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Lithium	0.0054	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/16/17 01:59	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 12:20	05/15/17 17:51	7050419	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388
Client ID: FB-1-5-10-17
Date/Time Sampled: 5/10/2017 3:15:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0388-10
Date/Time Received: 5/11/2017 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	05/15/17 18:30	05/15/17 18:30	7050492	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	05/15/17 09:58	05/15/17 18:39	7050484	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/15/17 09:58	05/15/17 18:39	7050484	RLC
Sulfate	0.17	1.0	0.09	mg/L	EPA 300.0	J	1	05/15/17 09:58	05/15/17 18:39	7050484	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/19/17 18:21	7050449	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Calcium	0.0551	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Zinc	ND	0.0100	0.0013	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/16/17 02:10	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 12:20	05/15/17 17:53	7050419	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050407 - SM 2540 C											
Blank (7050407-BLK1)						Prepared & Analyzed: 05/12/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7050407-BS1)						Prepared & Analyzed: 05/12/17					
Total Dissolved Solids	378	25	10	mg/L	400.00		94	84-108			
Duplicate (7050407-DUP1)		**Source: AAE0313-05**				Prepared & Analyzed: 05/12/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7050407-DUP2)		**Source: AAE0387-09**				Prepared & Analyzed: 05/12/17					
Total Dissolved Solids	218	25	10	mg/L		203			7	10	
Batch 7050492 - SM 2540 C											
Blank (7050492-BLK1)						Prepared & Analyzed: 05/15/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7050492-BS1)						Prepared & Analyzed: 05/15/17					
Total Dissolved Solids	406	25	10	mg/L	400.00		102	84-108			
Duplicate (7050492-DUP1)		**Source: AAE0388-06**				Prepared & Analyzed: 05/15/17					
Total Dissolved Solids	1390	25	10	mg/L		1360			3	10	

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May 22, 2017

Report No.: AAE0388

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050484 - EPA 300.0											
Blank (7050484-BLK1)						Prepared & Analyzed: 05/15/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7050484-BS1)						Prepared & Analyzed: 05/15/17					
Chloride	9.82	0.25	0.01	mg/L	10.020		98	90-110			
Fluoride	9.76	0.30	0.004	mg/L	10.020		97	90-110			
Sulfate	10.0	1.0	0.09	mg/L	10.050		100	90-110			
Matrix Spike (7050484-MS1)		**Source: AAE0388-01**				Prepared & Analyzed: 05/15/17					
Chloride	13.9	0.25	0.01	mg/L	10.020	4.17	97	90-110			
Fluoride	10.1	0.30	0.004	mg/L	10.020	0.05	100	90-110			
Sulfate	60.9	1.0	0.09	mg/L	10.050	56.4	44	90-110			QM-02
Matrix Spike (7050484-MS2)		**Source: AAE0388-07**				Prepared & Analyzed: 05/15/17					
Chloride	16.2	0.25	0.01	mg/L	10.020	7.14	91	90-110			
Fluoride	10.2	0.30	0.004	mg/L	10.020	0.05	101	90-110			
Sulfate	80.2	1.0	0.09	mg/L	10.050	78.3	19	90-110			QM-02
Matrix Spike Dup (7050484-MSD1)		**Source: AAE0388-01**				Prepared & Analyzed: 05/15/17					
Chloride	13.9	0.25	0.01	mg/L	10.020	4.17	97	90-110	0.2	15	
Fluoride	9.97	0.30	0.004	mg/L	10.020	0.05	99	90-110	1	15	
Sulfate	60.6	1.0	0.09	mg/L	10.050	56.4	41	90-110	0.5	15	QM-02

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May 22, 2017

Report No.: AAE0388

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050418 - EPA 7470A											
Blank (7050418-BLK1)						Prepared & Analyzed: 05/15/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7050418-BS1)						Prepared & Analyzed: 05/15/17					
Mercury	0.00218	0.00050	0.000041	mg/L	2.5000E-3		87	80-120			
Matrix Spike (7050418-MS1)		**Source: AAE0313-03**				Prepared & Analyzed: 05/15/17					
Mercury	0.00217	0.00050	0.000041	mg/L	2.5000E-3	ND	87	75-125			
Matrix Spike Dup (7050418-MSD1)		**Source: AAE0313-03**				Prepared & Analyzed: 05/15/17					
Mercury	0.00215	0.00050	0.000041	mg/L	2.5000E-3	ND	86	75-125	1	20	
Post Spike (7050418-PS1)		**Source: AAE0313-03**				Prepared & Analyzed: 05/15/17					
Mercury	1.78			ug/L	1.6667	-0.00823	107	80-120			
Batch 7050419 - EPA 7470A											
Blank (7050419-BLK1)						Prepared & Analyzed: 05/15/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7050419-BS1)						Prepared & Analyzed: 05/15/17					
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			
Matrix Spike (7050419-MS1)		**Source: AAE0388-07**				Prepared & Analyzed: 05/15/17					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (7050419-MSD1)		**Source: AAE0388-07**				Prepared & Analyzed: 05/15/17					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125	2	20	

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Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050419 - EPA 7470A											
Post Spike (7050419-PS1)			**Source: AAE0388-07**			Prepared & Analyzed: 05/15/17					
Mercury	1.74			ug/L	1.6667	-0.0138	104	80-120			
Batch 7050449 - EPA 3005A											
Blank (7050449-BLK1)						Prepared: 05/12/17 Analyzed: 05/15/17					
Antimony	ND	0.0030	0.0003	mg/L							
Arsenic	ND	0.0050	0.0004	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00007	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.00006	mg/L							
Calcium	0.0319	0.500	0.0104	mg/L							J
Chromium	0.0006	0.0100	0.0003	mg/L							J
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0006	mg/L							
Nickel	ND	0.0100	0.0003	mg/L							
Selenium	ND	0.0100	0.0014	mg/L							
Silver	ND	0.0100	0.0003	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0014	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7050449-BS1)						Prepared: 05/12/17 Analyzed: 05/15/17					
Antimony	0.116	0.0030	0.0003	mg/L	0.10000		116	80-120			
Arsenic	0.102	0.0050	0.0004	mg/L	0.10000		102	80-120			
Barium	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Beryllium	0.108	0.0030	0.00007	mg/L	0.10000		108	80-120			
Boron	1.17	0.0400	0.0060	mg/L	1.0000		117	80-120			
Cadmium	0.104	0.0010	0.00006	mg/L	0.10000		104	80-120			
Calcium	1.05	0.500	0.0104	mg/L	1.0000		105	80-120			
Chromium	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Copper	0.103	0.0250	0.0003	mg/L	0.10000		103	80-120			
Lead	0.106	0.0050	0.00007	mg/L	0.10000		106	80-120			
Molybdenum	0.106	0.0100	0.0006	mg/L	0.10000		106	80-120			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Selenium	0.108	0.0100	0.0014	mg/L	0.10000		108	80-120			
Silver	0.110	0.0100	0.0003	mg/L	0.10000		110	80-120			

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050449 - EPA 3005A											
LCS (7050449-BS1)						Prepared: 05/12/17 Analyzed: 05/15/17					
Thallium	0.107	0.0010	0.00005	mg/L	0.10000		107	80-120			
Vanadium	0.0978	0.0100	0.0014	mg/L	0.10000		98	80-120			
Zinc	0.102	0.0100	0.0013	mg/L	0.10000		102	80-120			
Lithium	0.113	0.0500	0.0011	mg/L	0.10000		113	80-120			
Matrix Spike (7050449-MS1)		**Source: AAE0387-02**				Prepared: 05/12/17 Analyzed: 05/15/17					
Antimony	0.111	0.0030	0.0003	mg/L	0.10000	ND	111	75-125			
Arsenic	0.107	0.0050	0.0004	mg/L	0.10000	0.0006	106	75-125			
Barium	0.240	0.0100	0.0003	mg/L	0.10000	0.125	115	75-125			
Beryllium	0.0991	0.0030	0.00007	mg/L	0.10000	ND	99	75-125			
Boron	2.08	0.0400	0.0060	mg/L	1.0000	0.690	139	75-125			QM-02
Cadmium	0.104	0.0010	0.00006	mg/L	0.10000	ND	104	75-125			
Calcium	30.2	25.0	0.522	mg/L	1.0000	29.9	33	75-125			QM-02
Chromium	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125			
Cobalt	0.0999	0.0100	0.0005	mg/L	0.10000	0.0018	98	75-125			
Copper	0.0966	0.0250	0.0003	mg/L	0.10000	ND	97	75-125			
Lead	0.0976	0.0050	0.00007	mg/L	0.10000	ND	98	75-125			
Molybdenum	0.102	0.0100	0.0006	mg/L	0.10000	ND	102	75-125			
Nickel	0.102	0.0100	0.0003	mg/L	0.10000	0.0016	101	75-125			
Selenium	0.104	0.0100	0.0014	mg/L	0.10000	ND	104	75-125			
Silver	0.101	0.0100	0.0003	mg/L	0.10000	ND	101	75-125			
Thallium	0.100	0.0010	0.00005	mg/L	0.10000	ND	100	75-125			
Vanadium	0.100	0.0100	0.0014	mg/L	0.10000	ND	100	75-125			
Zinc	0.0970	0.0100	0.0013	mg/L	0.10000	0.0013	96	75-125			
Lithium	0.113	0.0500	0.0011	mg/L	0.10000	0.0132	100	75-125			
Matrix Spike Dup (7050449-MSD1)		**Source: AAE0387-02**				Prepared: 05/12/17 Analyzed: 05/15/17					
Antimony	0.115	0.0030	0.0003	mg/L	0.10000	ND	115	75-125	3	20	
Arsenic	0.107	0.0050	0.0004	mg/L	0.10000	0.0006	106	75-125	0.2	20	
Barium	0.249	0.0100	0.0003	mg/L	0.10000	0.125	124	75-125	3	20	
Beryllium	0.106	0.0030	0.00007	mg/L	0.10000	ND	106	75-125	7	20	
Boron	2.11	0.0400	0.0060	mg/L	1.0000	0.690	142	75-125	1	20	QM-02
Cadmium	0.102	0.0010	0.00006	mg/L	0.10000	ND	102	75-125	1	20	
Calcium	30.2	25.0	0.522	mg/L	1.0000	29.9	32	75-125	0.03	20	QM-02
Chromium	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125	2	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	0.0018	101	75-125	3	20	
Copper	0.0993	0.0250	0.0003	mg/L	0.10000	ND	99	75-125	3	20	
Lead	0.102	0.0050	0.00007	mg/L	0.10000	ND	102	75-125	5	20	
Molybdenum	0.105	0.0100	0.0006	mg/L	0.10000	ND	105	75-125	3	20	
Nickel	0.102	0.0100	0.0003	mg/L	0.10000	0.0016	100	75-125	0.5	20	

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0388

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050449 - EPA 3005A											
Matrix Spike Dup (7050449-MSD1)		**Source: AAE0387-02**			Prepared: 05/12/17 Analyzed: 05/15/17						
Selenium	0.109	0.0100	0.0014	mg/L	0.10000	ND	109	75-125	4	20	
Silver	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125	0.2	20	
Thallium	0.106	0.0010	0.00005	mg/L	0.10000	ND	106	75-125	5	20	
Vanadium	0.107	0.0100	0.0014	mg/L	0.10000	ND	107	75-125	6	20	
Zinc	0.104	0.0100	0.0013	mg/L	0.10000	0.0013	102	75-125	7	20	
Lithium	0.121	0.0500	0.0011	mg/L	0.10000	0.0132	108	75-125	7	20	
Post Spike (7050449-PS1)		**Source: AAE0387-02**			Prepared: 05/12/17 Analyzed: 05/15/17						
Antimony	113			ug/L	100.00	0.177	113	80-120			
Arsenic	105			ug/L	100.00	0.577	105	80-120			
Barium	245			ug/L	100.00	125	120	80-120			
Beryllium	99.0			ug/L	100.00	0.0141	99	80-120			
Boron	2110			ug/L	1000.0	690	142	80-120			QM-02
Cadmium	104			ug/L	100.00	-0.0077	104	80-120			
Calcium	28800			ug/L	1000.0	29900	NR	80-120			QM-02
Chromium	104			ug/L	100.00	0.154	104	80-120			
Cobalt	104			ug/L	100.00	1.80	102	80-120			
Copper	97.2			ug/L	100.00	0.173	97	80-120			
Lead	100			ug/L	100.00	0.0257	100	80-120			
Molybdenum	105			ug/L	100.00	0.375	105	80-120			
Nickel	101			ug/L	100.00	1.58	99	80-120			
Selenium	105			ug/L	100.00	0.504	105	80-120			
Silver	104			ug/L	100.00	0.0031	104	80-120			
Thallium	104			ug/L	100.00	0.0152	104	80-120			
Vanadium	105			ug/L	100.00	0.464	105	80-120			
Zinc	101			ug/L	100.00	1.26	99	80-120			
Lithium	115			ug/L	100.00	13.2	102	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

B-01 Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

PACE ANALYTICAL SERVICES, LLC.

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Attention: Mr. Joju Abraham

May 22, 2017

Report Notes

No containers labeled GWC-1R were present in the cooler. However, there was 1 extra sample present without ID on the labels. The 1000ml unpreserved plastic container had 14:15 as collection time on the label and the other 3-HNO3 preserved containers had 11:25 as collection time on them. All 4 of these containers were the in same bag. These unidentified containers were logged in as GWC-1R by default. MMR

CHAIN OF CUSTODY RECORD

PaceAnalytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR ~~& Semi-Annual Monitoring~~

ANALYSIS REQUESTED

	Container type	Preservation	Analysis
A	P	3	Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)
B	P	7	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)
C	P	3	Radium 226 & 228 (SW-846 9315/9320)

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV	Cl, F, SO_4 & TDS	Radium 226 & 228	LAB ID	REMARKS/ADDITIONAL INFORMATION
5/8/17	1435	GW		✓	GWA-2	4	1	1	2	1	
5/9/17	1125	GW		✓	GWC-3R	4	1	1	2	2	
5/9/17	1340	W		✓	EB-1-5-9-17	4	1	1	2	3	
5/9/17	1415	GW		✓	GWC-1R	4	1	1	2	4	
5/9/17	—	GW		✓	DUP-1	4	1	1	2	5	
5/10/17	1310	GW		✓	GWC-5R	4	1	1	2	6	
5/10/17	1615	GW		✓	GWC-2R	4	1	1	2	7	
5/10/17	1840	GW		✓	GWC-4R	4	1	1	2	8	
5/10/17	1530	GW		✓	GWC-6R	6	1	1	4	9	extra rad
5/10/17	1515	W		✓	EB-1-5-10-17	4	1	1	2	10	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: C. Parker, J Berrsford — DATE/TIME: 5/10/17 1910

RELINQUISHED BY: [signature] — DATE/TIME: 5/11/17 0950

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: [signature] — DATE/TIME: 05/11/17 0952

SAMPLES SHIPPED VIA: [illegible]

FOR LAB USE ONLY — LAB #: AAE0388

Entered into LIMS: [illegible]

Tracking #: [illegible]

Plant Yates COC Gypsum Storage

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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LOG-IN CHECKLIST **Printed: 5/12/2017 11:08:14AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 05/11/17 09:50

Work Order: AAE0388
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 10 **#Containers:** 42

Minimum Temp(C): 4.0 **Maximum Temp(C):** 4.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	NO
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

No containers labeled GWC-1R were present in the cooler. However, there was 1 extra sample present without ID on the labels. The 1000ml unpreserved plastic container had 14:15 as collection time on the label and the other 3-HNO3 preserved containers had 11:25 as collection time on them. All 4 of these containers were the in same bag. These unidentified containers were logged in as GWC-1R by default. MMR

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

June 06, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAE0388 Plant Yates
Pace Project No.: 30218700

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on May 12, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: AAE0388 Plant Yates
Pace Project No.: 30218700

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: AAE0388 Plant Yates
Pace Project No.: 30218700

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30218700001	**GWA-2**	Water	05/08/17 14:35	05/12/17 10:20
30218700002	**GWC-3R**	Water	05/09/17 11:25	05/12/17 10:20
30218700003	**EB-1-5-9-17**	Water	05/09/17 13:40	05/12/17 10:20
30218700004	**GWC-1R**	Water	05/09/17 14:15	05/12/17 10:20
30218700005	**Dup-1**	Water	05/09/17 00:00	05/12/17 10:20
30218700006	**GWC-5R**	Water	05/10/17 13:10	05/12/17 10:20
30218700007	**GWC-2R**	Water	05/10/17 16:15	05/12/17 10:20
30218700008	**GWC-4R**	Water	05/10/17 18:40	05/12/17 10:20
30218700009	**GWC-6R**	Water	05/10/17 15:30	05/12/17 10:20
30218700010	**FB-1-5-10-17**	Water	05/10/17 15:15	05/12/17 10:20

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: AAE0388 Plant Yates
Pace Project No.: 30218700

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30218700001	**GWA-2**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218700002	**GWC-3R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218700003	**EB-1-5-9-17**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218700004	**GWC-1R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218700005	**Dup-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218700006	**GWC-5R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218700007	**GWC-2R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218700008	**GWC-4R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218700009	**GWC-6R**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218700010	**FB-1-5-10-17**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0388 Plant Yates
Pace Project No.: 30218700

Sample: GWA-2 **Lab ID: 30218700001** Collected: 05/08/17 14:35 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.172 ± 0.126 (0.220) C:82% T:NA**	pCi/L	05/26/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.0149 ± 0.327 (0.758) C:76% T:81%**	pCi/L	05/31/17 11:47	15262-20-1	
Total Radium	Total Radium Calculation	**0.187 ± 0.453 (0.978)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: GWC-3R **Lab ID: 30218700002** Collected: 05/09/17 11:25 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0106 ± 0.0607 (0.161) C:92% T:NA**	pCi/L	05/26/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.0261 ± 0.348 (0.804) C:81% T:79%**	pCi/L	05/31/17 11:47	15262-20-1	
Total Radium	Total Radium Calculation	**0.0367 ± 0.409 (0.965)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: EB-1-5-9-17 **Lab ID: 30218700003** Collected: 05/09/17 13:40 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0351 ± 0.0654 (0.149) C:90% T:NA**	pCi/L	05/26/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.926 ± 0.534 (1.01) C:78% T:78%**	pCi/L	05/31/17 11:48	15262-20-1	
Total Radium	Total Radium Calculation	**0.961 ± 0.599 (1.16)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: GWC-1R **Lab ID: 30218700004** Collected: 05/09/17 14:15 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.105 ± 0.0959 (0.173) C:85% T:NA**	pCi/L	05/26/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.329 ± 0.489 (1.06) C:82% T:78%**	pCi/L	05/31/17 15:36	15262-20-1	
Total Radium	Total Radium Calculation	**0.434 ± 0.585 (1.23)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: Dup-1 **Lab ID: 30218700005** Collected: 05/09/17 00:00 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0893 ± 0.0981 (0.196) C:86% T:NA**	pCi/L	05/26/17 08:25	13982-63-3	
Radium-228	EPA 9320	**0.126 ± 0.429 (0.963) C:75% T:78%**	pCi/L	05/31/17 15:36	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0388 Plant Yates
Pace Project No.: 30218700

Sample: Dup-1 **Lab ID: 30218700005** Collected: 05/09/17 00:00 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.215 ± 0.527 (1.16)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: GWC-5R **Lab ID: 30218700006** Collected: 05/10/17 13:10 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0530 ± 0.0766 (0.164) C:90% T:NA**	pCi/L	05/26/17 08:25	13982-63-3	
Radium-228	EPA 9320	**0.236 ± 0.479 (1.05) C:75% T:76%**	pCi/L	05/31/17 15:36	15262-20-1	
Total Radium	Total Radium Calculation	**0.289 ± 0.556 (1.21)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: GWC-2R **Lab ID: 30218700007** Collected: 05/10/17 16:15 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.458 ± 0.188 (0.243) C:88% T:NA**	pCi/L	05/26/17 08:33	13982-63-3	
Radium-228	EPA 9320	**-0.0303 ± 0.467 (1.08) C:75% T:77%**	pCi/L	05/31/17 15:36	15262-20-1	
Total Radium	Total Radium Calculation	**0.458 ± 0.655 (1.32)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: GWC-4R **Lab ID: 30218700008** Collected: 05/10/17 18:40 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0656 ± 0.0868 (0.182) C:85% T:NA**	pCi/L	05/26/17 08:24	13982-63-3	
Radium-228	EPA 9320	**0.000313 ± 0.404 (0.930) C:77% T:84%**	pCi/L	05/31/17 15:36	15262-20-1	
Total Radium	Total Radium Calculation	**0.0659 ± 0.491 (1.11)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: GWC-6R **Lab ID: 30218700009** Collected: 05/10/17 15:30 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.165 ± 0.120 (0.203) C:87% T:NA**	pCi/L	05/26/17 08:24	13982-63-3	
Radium-228	EPA 9320	**0.493 ± 0.359 (0.703) C:78% T:88%**	pCi/L	05/31/17 11:48	15262-20-1	
Total Radium	Total Radium Calculation	**0.658 ± 0.479 (0.906)**	pCi/L	06/05/17 14:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0388 Plant Yates
Pace Project No.: 30218700

Sample: FB-1-5-10-17 **Lab ID: 30218700010** Collected: 05/10/17 15:15 Received: 05/12/17 10:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0622 ± 0.0772 (0.157) C:90% T:NA**	pCi/L	05/26/17 08:24	13982-63-3	
Radium-228	EPA 9320	**0.232 ± 0.328 (0.704) C:79% T:84%**	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.294 ± 0.405 (0.861)**	pCi/L	06/05/17 14:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0388 Plant Yates
Pace Project No.: 30218700

QC Batch: 258875 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30218700001, 30218700002, 30218700003, 30218700004, 30218700005, 30218700006, 30218700007, 30218700008, 30218700009, 30218700010

METHOD BLANK: 1275038 Matrix: Water
Associated Lab Samples: 30218700001, 30218700002, 30218700003, 30218700004, 30218700005, 30218700006, 30218700007, 30218700008, 30218700009, 30218700010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.621 ± 0.402 (0.762) C:76% T:80%	pCi/L	05/31/17 11:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0388 Plant Yates
Pace Project No.: 30218700

QC Batch: 258653 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30218700001, 30218700002, 30218700003, 30218700004, 30218700005, 30218700006, 30218700007, 30218700008, 30218700009, 30218700010

METHOD BLANK: 1274144 Matrix: Water
Associated Lab Samples: 30218700001, 30218700002, 30218700003, 30218700004, 30218700005, 30218700006, 30218700007, 30218700008, 30218700009, 30218700010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0369 ± 0.0667 (0.151) C:89% T:NA	pCi/L	05/26/17 08:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: AAE0388 Plant Yates
Pace Project No.: 30218700

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

30218700

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAE0388 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 6/5/2017

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

WO#:30218700

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWA-2	G	5/8/2017 14:35	AAE0388-01	GW	2	X	001
2	GWC-3R	G	5/9/2017 11:25	AAE0388-02	GW	2	X	002
3	EB-1-5-9-17	G	5/9/2017 13:40	AAE0388-03	W	2	X	003
4	GWC-1R	G	5/9/2017 14:15	AAE0388-04	GW	2	X	004
5	Dup-1	G	5/9/2017 0:00	AAE0388-05	GW	2	X	005
6	GWC-5R	G	5/10/2017 13:10	AAE0388-06	GW	2	X	006
7	GWC-2R	G	5/10/2017 16:15	AAE0388-07	GW	2	X	007
8	GWC-4R	G	5/10/2017 18:40	AAE0388-08	GW	2	X	008
9	GWC-6R	G	5/10/2017 15:30	AAE0388-09	GW	4	X	009
10	FB-1-5-10-17	G	5/10/2017 15:15	AAE0388-10	W	2	X	010

Transfers	Released By	Date/Time	Received By	Date/Time
1	M. RAHMAN	5/11/17	[illegible]/Pace	5-12-17/1020
2				
3				

Comments: Client labels for -04 not correct.

Cooler Temperature on Receipt	°C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
	NA			

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

30218700

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR & Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:							P	P	P		
PRESERVATION:							3	7	3		
5/8/17	1435	GW		✓	GWA-2	4	1	1	2	1	
5/9/17	1125	GW		✓	GWC-3R	4	1	1	2	2	
5/9/17	1340	W		✓	EB-1-5-9-17	4	1	1	2	3	
5/9/17	1415	GW		✓	GWC-1R	4	1	1	2	4	
5/9/17	—	GW		✓	DUP-1	4	1	1	2	5	
5/10/17	1310	GW		✓	GWC-5R	4	1	1	2	6	
5/10/17	1615	GW		✓	GWC-2R	4	1	1	2	7	
5/10/17	1840	GW		✓	GWC-4R	4	1	1	2	8	
5/10/17	1530	GW		✓	GWC-6R	6	1	1	4	9	extra rad
5/10/17	1515	W		✓	FB-1-5-10-17	4	1	1	2	10	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: C. Parker, J. Berrsford — DATE/TIME: 5/10/17 1910

RELINQUISHED BY: [signature] — DATE/TIME: 5/11/17 0950

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: M Lahman — DATE/TIME: 05/11/17 0950

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (CLIENT) OTHER FS

Attached: (Yes) No NA — Ice: (Yes) No NA — Temperature: 1.0 4.0 — Custody Seal: (Yes) Broken Not Present — Cooler ID:

FOR LAB USE ONLY — LAB #: AAE0388 — Entered into LIMS: MK — Tracking #:

Plant Yates COC Gypsum Storage

Plant Yates State constituents Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

RTB

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA Project # 30218700

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 6812 5104 3087

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used NA Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp ____ °C Correction Factor: ____ °C Final Temp: ____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: CMH 5-12-17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used: -Pace Containers Used:	X			10.
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation. All containers needing preservation are found to be in compliance with EPA recommendation.	X			15. pH<2
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: CMH Date/time of preservation: ____ Lot # of added preservative: ____
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:		X		17.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: CMH Date: 5-12-17

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	5/24/2017
Worklist:	35720
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1275038
MB concentration:	0.621
M/B Counting Uncertainty:	0.386
MB MDC:	0.762
MB Numerical Performance Indicator:	3.15
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS35720	LCSD35720
Count Date:	5/31/2017	
Spike I.D.:	17-005	
Spike Concentration (pCi/mL):	24.405	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.801	
Target Conc. (pCi/L, g, F):	6.097	
Uncertainty (Calculated):	0.439	
Result (pCi/L, g, F):	4.587	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.641	
Numerical Performance Indicator:	-3.81	
Percent Recovery:	75.23%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30218700009	Enter Duplicate
Duplicate Sample I.D.	30218700009DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.493	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.348	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.199	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.337	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	1.191	30218700009
Duplicate RPD:	85.07%	30218700009DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

5/24/17

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	5/22/2017
Worklist:	35671
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1274144
MB concentration:	0.037
M/B Counting Uncertainty:	0.066
MB MDC:	0.151
MB Numerical Performance Indicator:	1.09
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS35671	LCSD35671
Count Date:	5/26/2017	
Spike I.D.:	13-033	
Spike Concentration (pCi/mL):	19.848	
Volume Used (mL):	0.40	
Aliquot Volume (L, g, F):	0.501	
Target Conc. (pCi/L, g, F):	15.854	
Uncertainty (Calculated):	0.746	
Result (pCi/L, g, F):	13.535	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.772	
Numerical Performance Indicator:	-4.23	
Percent Recovery:	85.37%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment

Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment

Sample I.D.:	30218700009	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30218700009DUP	
Sample Result (pCi/L, g, F):	0.165	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.117	
Sample Duplicate Result (pCi/L, g, F):	0.206	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.112	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.498	30218700009
Duplicate RPD:	22.23%	30218700009DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Product Name: Low-Flow System

Date: 2017-05-08 14:33:33

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.375 in
Site Name	Plant Yates Gypsum	Tubing Length	54 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	47.1 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	70 mL/min
Well diameter	2 in	Total System Volume	1.657807 L
Well Total Depth	52.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	10 in
Depth to Water	40.85 ft	Total Volume Pumped	3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:04:50	900.01	21.40	6.24	226.82	1.75	41.40	1.77	-48.68
Last 5	14:14:50	1500.00	21.42	6.18	227.88	1.43	41.50	0.89	-32.83
Last 5	14:19:50	1800.00	21.48	6.16	228.48	1.20	41.50	0.74	-26.22
Last 5	14:24:50	2100.00	21.43	6.13	229.92	1.05	41.60	0.70	-20.09
Last 5	14:29:50	2399.99	21.60	6.12	230.72	0.89	41.60	0.68	-15.11
Variance 0			0.06	-0.02	0.60			-0.15	6.61
Variance 1			-0.06	-0.02	1.44			-0.03	6.13
Variance 2			0.17	-0.01	0.80			-0.02	4.98

Notes

Collected at 14:35. Sunny 70s

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-09 14:17:56

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	peri Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	39 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	33.0 ft

Well Information:		Pumping Information:	
Well ID	GWC-1R	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.2640735 L
Well Total Depth	36.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	17 in
Depth to Water	26.15 ft	Total Volume Pumped	19.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:53:13	4199.97	20.84	5.42	654.14	6.87	27.60	7.13	68.37
Last 5	13:58:13	4499.97	20.92	5.42	642.24	6.01	27.60	7.14	69.10
Last 5	14:03:13	4799.96	20.87	5.43	649.74	5.39	27.60	7.14	68.22
Last 5	14:08:13	5099.97	20.98	5.42	648.93	5.08	27.60	7.15	68.69
Last 5	14:13:13	5399.95	21.14	5.41	651.88	4.91	27.60	7.14	68.58
Variance 0			-0.05	0.01	7.50			-0.01	-0.88
Variance 1			0.11	-0.00	-0.81			0.01	0.47
Variance 2			0.16	-0.01	2.95			-0.01	-0.11

Notes

Collected at 14:15. Sunny 80s. EB 1 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-10 16:16:02

Project Information:		Pump Information:	
Operator Name	J Berisford	Pump Model/Type	Peristaltic
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.17 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	43 ft
Latitude	33º 28' 1.59"		
Longitude	-84º -54' -2.28"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-2R	Final Pumping Rate	160 mL/min
Well diameter	2 in	Total System Volume	0.2819272 L
Well Total Depth	43.80 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	30.66 ft	Total Volume Pumped	29 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:55:18	9606.87	23.09	5.60	227.37	9.40	30.90	3.54	152.28
Last 5	16:00:18	9906.87	23.42	5.60	228.41	8.75	30.90	3.72	152.98
Last 5	16:05:18	10206.85	23.62	5.61	226.85	7.99	30.90	3.51	153.22
Last 5	16:10:18	10506.85	23.43	5.59	230.04	7.95	30.90	3.54	154.49
Last 5	16:15:18	10806.82	23.30	5.60	229.44	8.21	30.90	3.46	155.20
Variance 0			0.20	0.00	-1.57			-0.21	0.24
Variance 1			-0.18	-0.01	3.19			0.03	1.27
Variance 2			-0.14	0.01	-0.60			-0.08	0.71

Notes

Sunny, sample time-1615

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-09 11:22:28

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	34.0 ft

Well Information:		Pumping Information:	
Well ID	GWC-3R	Final Pumping Rate	190 mL/min
Well diameter	2 in	Total System Volume	0.6635369 L
Well Total Depth	38.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	7 in
Depth to Water	31.80 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:59:44	2399.99	20.43	5.08	167.69	6.09	32.40	6.75	128.44
Last 5	11:04:44	2699.98	20.31	5.12	165.32	4.39	32.40	6.78	126.70
Last 5	11:09:45	3000.97	20.48	5.13	162.69	3.96	32.40	6.79	126.30
Last 5	11:14:45	3300.98	20.57	5.11	161.33	3.55	32.40	6.79	126.92
Last 5	11:19:45	3600.97	20.50	5.12	160.04	3.38	32.40	6.78	124.90
Variance 0			0.17	0.01	-2.63			0.01	-0.40
Variance 1			0.09	-0.01	-1.36			-0.00	0.62
Variance 2			-0.07	0.01	-1.29			-0.00	-2.03

Notes

Collected at 11:25. Sunny 70s. DUP 1 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-10 18:39:38

Project Information:		Pump Information:	
Operator Name	J Berisford	Pump Model/Type	Peristaltic
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.17 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	31 ft
Latitude	33º 28' 2.79"		
Longitude	-84º -54' -0.21"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	26.05 ft

Well Information:		Pumping Information:	
Well ID	GWC-4R	Final Pumping Rate	135 mL/min
Well diameter	2 in	Total System Volume	0.2283661 L
Well Total Depth	31.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	18.52 ft	Total Volume Pumped	13.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	18:15:16	4205.96	21.00	5.65	648.39	2.01	18.80	2.22	168.14
Last 5	18:20:18	4507.96	21.61	5.71	478.08	1.75	18.80	2.27	161.23
Last 5	18:25:23	4812.95	21.02	5.68	413.70	1.67	18.80	3.07	161.28
Last 5	18:30:24	5113.96	20.70	5.68	423.51	2.07	18.80	3.11	158.99
Last 5	18:35:24	5413.94	20.49	5.68	423.10	1.82	18.80	3.13	158.11
Variance 0			-0.59	-0.03	-64.38			0.81	0.04
Variance 1			-0.31	-0.00	9.81			0.04	-2.29
Variance 2			-0.22	0.00	-0.41			0.02	-0.88

Notes

Collected at 18:40. Sunny 80s

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-10 13:10:16

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	39 ft

Well Information:		Pumping Information:	
Well ID	GWC-5R	Final Pumping Rate	90 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	42.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	34.50 ft	Total Volume Pumped	30 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:47:10	12013.85	22.61	5.21	1712.49	6.69	35.50	7.14	78.34
Last 5	12:52:10	12313.85	22.57	5.21	1712.13	6.26	35.50	7.04	78.41
Last 5	12:57:10	12613.84	22.28	5.21	1716.69	5.97	35.50	7.14	78.24
Last 5	13:02:10	12913.83	22.45	5.21	1716.00	5.13	35.50	7.14	78.33
Last 5	13:07:11	13214.83	22.70	5.20	1724.80	4.90	35.50	7.18	79.36
Variance 0			-0.29	-0.00	4.56			0.10	-0.17
Variance 1			0.16	-0.00	-0.69			-0.01	0.08
Variance 2			0.26	-0.00	8.80			0.05	1.03

Notes

Collected at 13:10. Sunny 80s

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-10 15:28:27

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	54 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	GWC-6R	Final Pumping Rate	90 mL/min
Well diameter	2 in	Total System Volume	0.3310249 L
Well Total Depth	51.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2 in
Depth to Water	39.7 ft	Total Volume Pumped	3.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:03:06	900.01	22.82	5.81	1284.99	3.95	39.80	5.96	53.72
Last 5	15:08:06	1200.00	22.53	5.81	1271.95	3.19	39.80	5.89	52.20
Last 5	15:13:06	1500.00	22.58	5.82	1272.67	3.76	39.80	5.91	50.97
Last 5	15:18:06	1800.00	22.36	5.83	1273.94	3.04	39.80	5.92	49.83
Last 5	15:23:06	2100.05	22.22	5.82	1279.32	2.55	39.80	5.94	49.43
Variance 0			0.05	0.01	0.71			0.02	-1.24
Variance 1			-0.22	0.00	1.27			0.01	-1.14
Variance 2			-0.14	-0.01	5.38			0.02	-0.40

Notes

Collected at15:30. Sunny 80s. FB 1 here

Grab Samples

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAG0537
August 11, 2017
Project: CCR Event
Project #:Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-2	AAG0537-01	Ground Water	07/17/17 10:45	07/19/17 09:25
GWC-5R	AAG0537-02	Ground Water	07/17/17 14:50	07/19/17 09:25
FB-1-7-17-17	AAG0537-03	Water	07/17/17 15:20	07/19/17 09:25
GWC-6R	AAG0537-04	Ground Water	07/18/17 10:45	07/19/17 09:25
EB-1-7-18-17	AAG0537-05	Water	07/18/17 09:45	07/19/17 09:25
GWC-3R	AAG0537-06	Ground Water	07/18/17 13:50	07/19/17 09:25
GWC-2R	AAG0537-07	Ground Water	07/18/17 15:50	07/19/17 09:25
GWC-1R	AAG0537-08	Ground Water	07/18/17 14:15	07/19/17 09:25
GWC-4R	AAG0537-09	Ground Water	07/18/17 12:45	07/19/17 09:25
Dup-1	AAG0537-10	Ground Water	07/18/17 00:00	07/19/17 09:25

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Case Narrative

Plant Yates Gypsum Storage Phase 2 Report AAG0537 8/11/2017
This revised report replaces the original report submitted on 7/28/2017.
The consultant requested data for copper, nickel, and silver that were not provided in the original report submittal. The following changes were made: copper, nickel, and silver results were added to all samples. No other changes were made to this report.

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: GWA-2
Date/Time Sampled: 7/17/2017 10:45:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0537-01
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	185	25	10	mg/L	SM 2540 C		1	07/21/17 19:20	07/21/17 19:20	7070536	JPT
Inorganic Anions											
Chloride	3.8	0.25	0.02	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 13:56	7070573	RLC
Fluoride	0.14	0.30	0.03	mg/L	EPA 300.0	J	1	07/24/17 11:21	07/24/17 13:56	7070573	RLC
Sulfate	63	5.0	0.08	mg/L	EPA 300.0		5	07/24/17 11:21	07/26/17 02:35	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Barium	0.0600	0.0100	0.0004	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/24/17 15:20	07/26/17 14:55	7070582	CSW
Boron	0.0092	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/26/17 14:55	7070582	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Calcium	14.1	5.00	2.02	mg/L	EPA 6020B		50	07/24/17 15:20	07/25/17 21:38	7070582	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Cobalt	0.0046	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Copper	0.0003	0.0250	0.0003	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Nickel	0.0049	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Thallium	0.00006	0.0010	0.00005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Zinc	0.0032	0.0100	0.0012	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:33	7070582	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:23	7070599	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: GWC-5R
Date/Time Sampled: 7/17/2017 2:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0537-02
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1340	25	10	mg/L	SM 2540 C		1	07/21/17 19:20	07/21/17 19:20	7070536	JPT
Inorganic Anions											
Chloride	3.2	0.25	0.02	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 14:17	7070573	RLC
Fluoride	0.37	0.30	0.03	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 14:17	7070573	RLC
Sulfate	830	50	0.85	mg/L	EPA 300.0		50	07/24/17 11:21	07/26/17 02:56	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Arsenic	0.0013	0.0050	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Barium	0.0274	0.0100	0.0004	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Beryllium	0.0004	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/26/17 15:01	7070582	CSW
Boron	0.0102	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/26/17 15:01	7070582	CSW
Cadmium	0.0004	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Calcium	125	25.0	2.02	mg/L	EPA 6020B		50	07/24/17 15:20	07/25/17 21:50	7070582	CSW
Chromium	0.0017	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Copper	0.0004	0.0250	0.0003	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Nickel	0.0015	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Selenium	0.0136	0.0100	0.0018	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Zinc	0.0055	0.0100	0.0012	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:44	7070582	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:26	7070599	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: FB-1-7-17-17
Date/Time Sampled: 7/17/2017 3:20:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAG0537-03
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/21/17 19:20	07/21/17 19:20	7070536	JPT
Inorganic Anions											
Chloride	0.09	0.25	0.02	mg/L	EPA 300.0	J	1	07/24/17 11:21	07/24/17 14:37	7070573	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 14:37	7070573	RLC
Sulfate	0.35	1.0	0.02	mg/L	EPA 300.0	J	1	07/24/17 11:21	07/24/17 14:37	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/24/17 15:20	07/26/17 15:06	7070582	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	07/24/17 15:20	07/26/17 15:06	7070582	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Nickel	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Zinc	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 21:56	7070582	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:28	7070599	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: GWC-6R
Date/Time Sampled: 7/18/2017 10:45:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0537-04
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1270	25	10	mg/L	SM 2540 C		1	07/24/17 18:15	07/24/17 18:15	7070574	JPT
Inorganic Anions											
Chloride	4.0	0.25	0.02	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 14:58	7070573	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 14:58	7070573	RLC
Sulfate	880	50	0.85	mg/L	EPA 300.0		50	07/24/17 11:21	07/26/17 03:17	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Arsenic	0.0010	0.0050	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Barium	0.0994	0.0100	0.0004	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/24/17 15:20	07/26/17 15:12	7070582	CSW
Boron	0.0061	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/26/17 15:12	7070582	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Calcium	157	25.0	2.02	mg/L	EPA 6020B		50	07/24/17 15:20	07/25/17 22:07	7070582	CSW
Chromium	0.0012	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Copper	0.0017	0.0250	0.0003	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Nickel	0.0024	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Selenium	0.0046	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Zinc	0.0024	0.0100	0.0012	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Lithium	0.0020	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:01	7070582	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:30	7070599	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: EB-1-7-18-17
Date/Time Sampled: 7/18/2017 9:45:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAG0537-05
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/24/17 18:15	07/24/17 18:15	7070574	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.02	mg/L	EPA 300.0	J	1	07/24/17 11:21	07/24/17 15:19	7070573	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 15:19	7070573	RLC
Sulfate	0.27	1.0	0.02	mg/L	EPA 300.0	J	1	07/24/17 11:21	07/24/17 15:19	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/24/17 15:20	07/26/17 15:29	7070582	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	07/24/17 15:20	07/26/17 15:29	7070582	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Nickel	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Zinc	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:13	7070582	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:33	7070599	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: GWC-3R
Date/Time Sampled: 7/18/2017 1:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0537-06
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	89	25	10	mg/L	SM 2540 C		1	07/24/17 18:15	07/24/17 18:15	7070574	JPT
Inorganic Anions											
Chloride	7.7	0.25	0.02	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 15:39	7070573	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 15:39	7070573	RLC
Sulfate	44	1.0	0.02	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 15:39	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Barium	0.0407	0.0100	0.0004	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Beryllium	0.0002	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/26/17 15:35	7070582	CSW
Boron	0.0073	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/26/17 15:35	7070582	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Calcium	4.16	0.500	0.0404	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Chromium	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Nickel	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Selenium	0.0027	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Zinc	0.0028	0.0100	0.0012	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:19	7070582	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:35	7070599	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: GWC-2R
Date/Time Sampled: 7/18/2017 3:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0537-07
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	122	25	10	mg/L	SM 2540 C		1	07/24/17 18:15	07/24/17 18:15	7070574	JPT
Inorganic Anions											
Chloride	6.0	0.25	0.02	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 16:00	7070573	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 16:00	7070573	RLC
Sulfate	57	5.0	0.08	mg/L	EPA 300.0		5	07/24/17 11:21	07/26/17 03:37	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Barium	0.0490	0.0100	0.0004	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/24/17 15:20	07/26/17 15:41	7070582	CSW
Boron	0.0169	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/26/17 15:41	7070582	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Calcium	8.69	0.500	0.0404	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Cobalt	0.0261	0.0100	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Lead	0.00007	0.0050	0.00007	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Nickel	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Selenium	0.0024	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Zinc	0.0017	0.0100	0.0012	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:41	7070582	CSW
Lithium	0.0035	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/26/17 15:41	7070582	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:37	7070599	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: GWC-1R
Date/Time Sampled: 7/18/2017 2:15:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0537-08
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	322	25	10	mg/L	SM 2540 C		1	07/24/17 18:15	07/24/17 18:15	7070574	JPT
Inorganic Anions											
Chloride	18	0.25	0.02	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 16:21	7070573	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 16:21	7070573	RLC
Sulfate	200	20	0.34	mg/L	EPA 300.0		20	07/24/17 11:21	07/26/17 03:58	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Barium	0.0390	0.0100	0.0004	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/24/17 15:20	07/26/17 15:46	7070582	CSW
Boron	0.0123	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/26/17 15:46	7070582	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Calcium	33.2	2.50	0.202	mg/L	EPA 6020B		5	07/24/17 15:20	07/25/17 23:04	7070582	CSW
Chromium	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Cobalt	0.0032	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Copper	0.0004	0.0250	0.0003	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Nickel	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Selenium	0.0021	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Zinc	0.0015	0.0100	0.0012	mg/L	EPA 6020B	J	1	07/24/17 15:20	07/25/17 22:53	7070582	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/24/17 15:20	07/26/17 15:46	7070582	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:40	7070599	MTC

PACE ANALYTICAL SERVICES, LLC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: GWC-4R
Date/Time Sampled: 7/18/2017 12:45:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0537-09
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	179	25	10	mg/L	SM 2540 C		1	07/24/17 18:15	07/24/17 18:15	7070574	JPT
Inorganic Anions											
Chloride	46	0.25	0.02	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 16:41	7070573	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 16:41	7070573	RLC
Sulfate	50	5.0	0.08	mg/L	EPA 300.0		5	07/24/17 11:21	07/26/17 04:19	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Barium	0.0187	0.0100	0.0004	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Boron	0.970	0.0400	0.0060	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Calcium	16.8	5.00	2.02	mg/L	EPA 6020B		50	07/25/17 14:50	07/26/17 19:09	7070592	CSW
Chromium	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Cobalt	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Nickel	0.0015	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Selenium	0.0047	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Zinc	0.0015	0.0100	0.0012	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:03	7070592	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:47	7070599	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537
Client ID: Dup-1
Date/Time Sampled: 7/18/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0537-10
Date/Time Received: 7/19/2017 9:25:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	217	25	10	mg/L	SM 2540 C		1	07/24/17 18:15	07/24/17 18:15	7070574	JPT
Inorganic Anions											
Chloride	53	1.2	0.12	mg/L	EPA 300.0		5	07/24/17 11:21	07/26/17 06:02	7070573	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/24/17 11:21	07/24/17 17:02	7070573	RLC
Sulfate	55	5.0	0.08	mg/L	EPA 300.0		5	07/24/17 11:21	07/26/17 06:02	7070573	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Barium	0.0182	0.0100	0.0004	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Boron	0.972	0.400	0.0595	mg/L	EPA 6020B		10	07/25/17 14:50	07/28/17 11:39	7070592	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Calcium	16.8	5.00	2.02	mg/L	EPA 6020B		50	07/25/17 14:50	07/26/17 19:32	7070592	CSW
Chromium	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Cobalt	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Copper	0.0003	0.0250	0.0003	mg/L	EPA 6020B	B-01, J	1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Nickel	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Selenium	0.0052	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Silver	ND	0.0100	0.0002	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Vanadium	ND	0.0100	0.0012	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Zinc	0.0016	0.0100	0.0012	mg/L	EPA 6020B	J	1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/25/17 14:50	07/26/17 19:26	7070592	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/25/17 08:45	07/25/17 12:49	7070599	MTC

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Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070536 - SM 2540 C											
Blank (7070536-BLK1)						Prepared & Analyzed: 07/21/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7070536-BS1)						Prepared & Analyzed: 07/21/17					
Total Dissolved Solids	382	25	10	mg/L	400.00		96	84-108			
Duplicate (7070536-DUP1)		**Source: AAG0338-15RE1**				Prepared & Analyzed: 07/21/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7070536-DUP2)		**Source: AAG0505-04**				Prepared & Analyzed: 07/21/17					
Total Dissolved Solids	11	25	10	mg/L		13			17	10	QR-03, J
Batch 7070574 - SM 2540 C											
Blank (7070574-BLK1)						Prepared & Analyzed: 07/24/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7070574-BS1)						Prepared & Analyzed: 07/24/17					
Total Dissolved Solids	368	25	10	mg/L	400.00		92	84-108			
Duplicate (7070574-DUP1)		**Source: AAG0537-04**				Prepared & Analyzed: 07/24/17					
Total Dissolved Solids	1260	25	10	mg/L		1270			0.9	10	
Duplicate (7070574-DUP2)		**Source: AAG0537-05**				Prepared & Analyzed: 07/24/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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August 11, 2017

Report No.: AAG0537

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070573 - EPA 300.0											
Blank (7070573-BLK1)						Prepared & Analyzed: 07/24/17					
Chloride	ND	0.25	0.02	mg/L							
Fluoride	ND	0.30	0.03	mg/L							
Sulfate	ND	1.0	0.02	mg/L							
LCS (7070573-BS1)						Prepared & Analyzed: 07/24/17					
Chloride	10.2	0.25	0.02	mg/L	10.020		102	90-110			
Fluoride	9.92	0.30	0.03	mg/L	10.020		99	90-110			
Sulfate	10.4	1.0	0.02	mg/L	10.050		104	90-110			
Matrix Spike (7070573-MS1)		**Source: AAG0595-01**				Prepared & Analyzed: 07/24/17					
Chloride	16.9	0.25	0.02	mg/L	10.020	7.37	95	90-110			
Fluoride	12.0	0.30	0.03	mg/L	10.020	0.21	118	90-110			QM-05
Sulfate	47.7	1.0	0.02	mg/L	10.050	48.3	NR	90-110			QM-02
Matrix Spike (7070573-MS2)		**Source: AAG0596-04**				Prepared & Analyzed: 07/24/17					
Chloride	41.9	0.25	0.02	mg/L	10.020	35.5	64	90-110			QM-05
Fluoride	10.6	0.30	0.03	mg/L	10.020	0.18	104	90-110			QM-02
Sulfate	178	1.0	0.02	mg/L	10.050	186	NR	90-110			
Matrix Spike Dup (7070573-MSD1)		**Source: AAG0595-01**				Prepared & Analyzed: 07/24/17					
Chloride	16.9	0.25	0.02	mg/L	10.020	7.37	95	90-110	0.04	15	
Fluoride	12.0	0.30	0.03	mg/L	10.020	0.21	117	90-110	0.7	15	QM-05
Sulfate	47.2	1.0	0.02	mg/L	10.050	48.3	NR	90-110	1	15	QM-02

PACE ANALYTICAL SERVICES, LLC.

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August 11, 2017

Report No.: AAG0537

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070582 - EPA 3005A											
Blank (7070582-BLK1)						Prepared: 07/24/17 Analyzed: 07/25/17					
Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							
LCS (7070582-BS1)						Prepared: 07/24/17 Analyzed: 07/25/17					
Antimony	0.109	0.0030	0.0006	mg/L	0.10000		109	80-120			
Arsenic	0.0976	0.0050	0.0005	mg/L	0.10000		98	80-120			
Barium	0.101	0.0100	0.0004	mg/L	0.10000		101	80-120			
Beryllium	0.104	0.0030	0.00009	mg/L	0.10000		104	80-120			
Boron	0.989	0.0400	0.0060	mg/L	1.0000		99	80-120			
Cadmium	0.107	0.0010	0.0001	mg/L	0.10000		107	80-120			
Calcium	1.01	0.500	0.0404	mg/L	1.0000		101	80-120			
Chromium	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Cobalt	0.0977	0.0100	0.0003	mg/L	0.10000		98	80-120			
Copper	0.101	0.0250	0.0003	mg/L	0.10000		101	80-120			
Lead	0.100	0.0050	0.00007	mg/L	0.10000		100	80-120			
Molybdenum	0.104	0.0100	0.0010	mg/L	0.10000		104	80-120			
Nickel	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Selenium	0.101	0.0100	0.0018	mg/L	0.10000		101	80-120			
Silver	0.0982	0.0100	0.0002	mg/L	0.10000		98	80-120			
Thallium	0.105	0.0010	0.00005	mg/L	0.10000		105	80-120			
Vanadium	0.104	0.0100	0.0012	mg/L	0.10000		104	80-120			
Zinc	0.101	0.0100	0.0012	mg/L	0.10000		101	80-120			
Lithium	0.105	0.0500	0.0015	mg/L	0.10000		105	80-120			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070582 - EPA 3005A											
Matrix Spike (7070582-MS1)		**Source: AAG0435-01**			Prepared: 07/24/17 Analyzed: 07/25/17						
Antimony	0.109	0.0030	0.0006	mg/L	0.10000	0.0008	108	75-125			
Arsenic	0.102	0.0050	0.0005	mg/L	0.10000	0.0029	99	75-125			
Barium	0.122	0.0100	0.0004	mg/L	0.10000	0.0245	98	75-125			
Beryllium	0.101	0.0030	0.00009	mg/L	0.10000	ND	101	75-125			
Boron	0.978	0.0400	0.0060	mg/L	1.0000	0.0070	97	75-125			
Cadmium	0.106	0.0010	0.0001	mg/L	0.10000	ND	106	75-125			
Calcium	25.0	25.0	2.02	mg/L	1.0000	24.8	22	75-125			QM-02, J
Chromium	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Cobalt	0.103	0.0100	0.0003	mg/L	0.10000	0.0005	103	75-125			
Copper	0.102	0.0250	0.0003	mg/L	0.10000	ND	102	75-125			
Lead	0.0985	0.0050	0.00007	mg/L	0.10000	ND	98	75-125			
Molybdenum	0.106	0.0100	0.0010	mg/L	0.10000	0.0027	104	75-125			
Nickel	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125			
Selenium	0.104	0.0100	0.0018	mg/L	0.10000	ND	104	75-125			
Silver	0.0988	0.0100	0.0002	mg/L	0.10000	ND	99	75-125			
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	ND	101	75-125			
Vanadium	0.101	0.0100	0.0012	mg/L	0.10000	ND	101	75-125			
Zinc	0.102	0.0100	0.0012	mg/L	0.10000	ND	102	75-125			
Lithium	0.102	0.0500	0.0015	mg/L	0.10000	ND	102	75-125			
Matrix Spike Dup (7070582-MSD1)		**Source: AAG0435-01**			Prepared: 07/24/17 Analyzed: 07/25/17						
Antimony	0.110	0.0030	0.0006	mg/L	0.10000	0.0008	109	75-125	0.8	20	
Arsenic	0.104	0.0050	0.0005	mg/L	0.10000	0.0029	101	75-125	2	20	
Barium	0.122	0.0100	0.0004	mg/L	0.10000	0.0245	98	75-125	0.2	20	
Beryllium	0.102	0.0030	0.00009	mg/L	0.10000	ND	102	75-125	1	20	
Boron	0.979	0.0400	0.0060	mg/L	1.0000	0.0070	97	75-125	0.05	20	
Cadmium	0.107	0.0010	0.0001	mg/L	0.10000	ND	107	75-125	2	20	
Calcium	27.8	25.0	2.02	mg/L	1.0000	24.8	304	75-125	11	20	QM-02
Chromium	0.108	0.0100	0.0005	mg/L	0.10000	ND	108	75-125	4	20	
Cobalt	0.105	0.0100	0.0003	mg/L	0.10000	0.0005	105	75-125	2	20	
Copper	0.104	0.0250	0.0003	mg/L	0.10000	ND	104	75-125	2	20	
Lead	0.0967	0.0050	0.00007	mg/L	0.10000	ND	97	75-125	2	20	
Molybdenum	0.107	0.0100	0.0010	mg/L	0.10000	0.0027	104	75-125	0.7	20	
Nickel	0.107	0.0100	0.0005	mg/L	0.10000	ND	107	75-125	4	20	
Selenium	0.103	0.0100	0.0018	mg/L	0.10000	ND	103	75-125	0.5	20	
Silver	0.0999	0.0100	0.0002	mg/L	0.10000	ND	100	75-125	1	20	
Thallium	0.0993	0.0010	0.00005	mg/L	0.10000	ND	99	75-125	2	20	
Vanadium	0.105	0.0100	0.0012	mg/L	0.10000	ND	105	75-125	4	20	
Zinc	0.102	0.0100	0.0012	mg/L	0.10000	ND	102	75-125	0.02	20	
Lithium	0.103	0.0500	0.0015	mg/L	0.10000	ND	103	75-125	0.8	20	

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Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070582 - EPA 3005A											
Post Spike (7070582-PS1)			**Source: AAG0435-01**			Prepared: 07/24/17 Analyzed: 07/25/17					
Antimony	102			ug/L	100.00	0.765	101	80-120			
Arsenic	98.7			ug/L	100.00	2.90	96	80-120			
Barium	121			ug/L	100.00	24.5	96	80-120			
Beryllium	96.7			ug/L	100.00	0.0123	97	80-120			
Boron	983			ug/L	1000.0	7.02	98	80-120			
Cadmium	104			ug/L	100.00	0.0302	104	80-120			
Calcium	25100			ug/L	1000.0	24800	33	80-120			QM-02
Chromium	97.5			ug/L	100.00	0.225	97	80-120			
Cobalt	96.1			ug/L	100.00	0.503	96	80-120			
Copper	98.4			ug/L	100.00	0.119	98	80-120			
Lead	95.3			ug/L	100.00	0.0125	95	80-120			
Molybdenum	106			ug/L	100.00	2.71	103	80-120			
Nickel	95.7			ug/L	100.00	0.455	95	80-120			
Selenium	101			ug/L	100.00	0.481	100	80-120			
Silver	94.2			ug/L	100.00	0.0001	94	80-120			
Thallium	96.7			ug/L	100.00	0.0241	97	80-120			
Vanadium	97.6			ug/L	100.00	-0.912	98	80-120			
Zinc	97.6			ug/L	100.00	1.04	97	80-120			
Lithium	100			ug/L	100.00	0.698	100	80-120			
Batch 7070592 - EPA 3005A											
Blank (7070592-BLK1)						Prepared: 07/25/17 Analyzed: 07/26/17					
Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	0.0004	0.0250	0.0003	mg/L							J
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070592 - EPA 3005A											
Blank (7070592-BLK1)						Prepared: 07/25/17 Analyzed: 07/26/17					
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							
LCS (7070592-BS1)						Prepared: 07/25/17 Analyzed: 07/26/17					
Antimony	0.110	0.0030	0.0006	mg/L	0.10000		110	80-120			
Arsenic	0.104	0.0050	0.0005	mg/L	0.10000		104	80-120			
Barium	0.104	0.0100	0.0004	mg/L	0.10000		104	80-120			
Beryllium	0.100	0.0030	0.00009	mg/L	0.10000		100	80-120			
Boron	1.05	0.0400	0.0060	mg/L	1.0000		105	80-120			
Cadmium	0.108	0.0010	0.0001	mg/L	0.10000		108	80-120			
Calcium	1.03	0.500	0.0404	mg/L	1.0000		103	80-120			
Chromium	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Cobalt	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Copper	0.104	0.0250	0.0003	mg/L	0.10000		104	80-120			
Lead	0.104	0.0050	0.00007	mg/L	0.10000		104	80-120			
Molybdenum	0.109	0.0100	0.0010	mg/L	0.10000		109	80-120			
Nickel	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Selenium	0.108	0.0100	0.0018	mg/L	0.10000		108	80-120			
Silver	0.101	0.0100	0.0002	mg/L	0.10000		101	80-120			
Thallium	0.106	0.0010	0.00005	mg/L	0.10000		106	80-120			
Vanadium	0.103	0.0100	0.0012	mg/L	0.10000		103	80-120			
Zinc	0.109	0.0100	0.0012	mg/L	0.10000		109	80-120			
Lithium	0.0993	0.0500	0.0015	mg/L	0.10000		99	80-120			
Matrix Spike (7070592-MS1)			**Source: AAG0593-01**			Prepared: 07/25/17 Analyzed: 07/26/17					
Antimony	0.109	0.0030	0.0006	mg/L	0.10000	ND	109	75-125			
Arsenic	0.108	0.0050	0.0005	mg/L	0.10000	0.0009	107	75-125			
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0304	95	75-125			
Beryllium	0.102	0.0030	0.00009	mg/L	0.10000	ND	102	75-125			
Boron	1.06	0.0400	0.0060	mg/L	1.0000	0.0091	105	75-125			
Cadmium	0.107	0.0010	0.0001	mg/L	0.10000	ND	107	75-125			
Calcium	49.8	25.0	2.02	mg/L	1.0000	47.5	236	75-125			QM-02
Chromium	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Cobalt	0.114	0.0100	0.0003	mg/L	0.10000	0.0109	103	75-125			
Copper	0.103	0.0250	0.0003	mg/L	0.10000	ND	103	75-125			
Lead	0.104	0.0050	0.00007	mg/L	0.10000	ND	104	75-125			
Molybdenum	0.112	0.0100	0.0010	mg/L	0.10000	0.0028	110	75-125			
Nickel	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Selenium	0.108	0.0100	0.0018	mg/L	0.10000	ND	108	75-125			
Silver	0.0984	0.0100	0.0002	mg/L	0.10000	ND	98	75-125			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

August 11, 2017

Report No.: AAG0537

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070592 - EPA 3005A											
Matrix Spike (7070592-MS1)		**Source: AAG0593-01**			Prepared: 07/25/17 Analyzed: 07/26/17						
Thallium	0.106	0.0010	0.00005	mg/L	0.10000	ND	106	75-125			
Vanadium	0.105	0.0100	0.0012	mg/L	0.10000	ND	105	75-125			
Zinc	0.111	0.0100	0.0012	mg/L	0.10000	0.0025	108	75-125			
Lithium	0.0997	0.0500	0.0015	mg/L	0.10000	ND	100	75-125			
Matrix Spike Dup (7070592-MSD1)		**Source: AAG0593-01**			Prepared: 07/25/17 Analyzed: 07/26/17						
Antimony	0.107	0.0030	0.0006	mg/L	0.10000	ND	107	75-125	2	20	
Arsenic	0.105	0.0050	0.0005	mg/L	0.10000	0.0009	104	75-125	3	20	
Barium	0.125	0.0100	0.0004	mg/L	0.10000	0.0304	95	75-125	0.5	20	
Beryllium	0.0986	0.0030	0.00009	mg/L	0.10000	ND	99	75-125	4	20	
Boron	1.03	0.0400	0.0060	mg/L	1.0000	0.0091	102	75-125	3	20	
Cadmium	0.106	0.0010	0.0001	mg/L	0.10000	ND	106	75-125	1	20	
Calcium	48.7	25.0	2.02	mg/L	1.0000	47.5	119	75-125	2	20	
Chromium	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125	2	20	
Cobalt	0.112	0.0100	0.0003	mg/L	0.10000	0.0109	101	75-125	1	20	
Copper	0.101	0.0250	0.0003	mg/L	0.10000	ND	101	75-125	1	20	
Lead	0.101	0.0050	0.00007	mg/L	0.10000	ND	101	75-125	3	20	
Molybdenum	0.111	0.0100	0.0010	mg/L	0.10000	0.0028	108	75-125	1	20	
Nickel	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125	1	20	
Selenium	0.108	0.0100	0.0018	mg/L	0.10000	ND	108	75-125	0.08	20	
Silver	0.0966	0.0100	0.0002	mg/L	0.10000	ND	97	75-125	2	20	
Thallium	0.102	0.0010	0.00005	mg/L	0.10000	ND	102	75-125	4	20	
Vanadium	0.105	0.0100	0.0012	mg/L	0.10000	ND	105	75-125	0.4	20	
Zinc	0.109	0.0100	0.0012	mg/L	0.10000	0.0025	106	75-125	2	20	
Lithium	0.0953	0.0500	0.0015	mg/L	0.10000	ND	95	75-125	5	20	
Post Spike (7070592-PS1)		**Source: AAG0593-01**			Prepared: 07/25/17 Analyzed: 07/26/17						
Antimony	105			ug/L	100.00	0.379	105	80-120			
Arsenic	105			ug/L	100.00	0.902	104	80-120			
Barium	123			ug/L	100.00	30.4	93	80-120			
Beryllium	98.8			ug/L	100.00	0.0017	99	80-120			
Boron	1050			ug/L	1000.0	9.06	104	80-120			
Cadmium	103			ug/L	100.00	0.0156	103	80-120			
Calcium	48300			ug/L	1000.0	47500	85	80-120			
Chromium	102			ug/L	100.00	0.187	102	80-120			
Cobalt	112			ug/L	100.00	10.9	101	80-120			
Copper	102			ug/L	100.00	0.266	102	80-120			
Lead	101			ug/L	100.00	0.0221	101	80-120			
Molybdenum	112			ug/L	100.00	2.81	109	80-120			
Nickel	101			ug/L	100.00	0.223	101	80-120			

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August 11, 2017

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070592 - EPA 3005A											
Post Spike (7070592-PS1)			**Source: AAG0593-01**				Prepared: 07/25/17 Analyzed: 07/26/17				
Selenium	103			ug/L	100.00	1.10	102	80-120			
Silver	98.6			ug/L	100.00	0.0014	99	80-120			
Thallium	102			ug/L	100.00	0.0060	102	80-120			
Vanadium	104			ug/L	100.00	0.537	104	80-120			
Zinc	109			ug/L	100.00	2.49	106	80-120			
Lithium	98.0			ug/L	100.00	0.0451	98	80-120			
Batch 7070599 - EPA 7470A											
Blank (7070599-BLK1)							Prepared & Analyzed: 07/25/17				
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7070599-BS1)							Prepared & Analyzed: 07/25/17				
Mercury	0.00233	0.00050	0.000041	mg/L	2.5000E-3		93	80-120			
Matrix Spike (7070599-MS1)			**Source: AAG0505-01**				Prepared & Analyzed: 07/25/17				
Mercury	0.00215	0.00050	0.000041	mg/L	2.5000E-3	0.00013	81	75-125			
Matrix Spike Dup (7070599-MSD1)			**Source: AAG0505-01**				Prepared & Analyzed: 07/25/17				
Mercury	0.00206	0.00050	0.000041	mg/L	2.5000E-3	0.00013	77	75-125	4	20	
Post Spike (7070599-PS1)			**Source: AAG0505-01**				Prepared & Analyzed: 07/25/17				
Mercury	1.51			ug/L	1.6667	0.0851	85	80-120			

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Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

B-01 Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

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Report Notes

Report reissued 8/11/2017 to provide data for additional analytes per consultant request. BMcD

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR & Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE M-DD-YY	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE:		P	P	P		
					PRESERVATION:		3	7	3		
7-17-17	1045	GW		✓	GWA-2	4	1	1	2	1	
7-17-17	1450	GW		✓	GWC-5R	4	1	1	2	2	
7-17-17	1520	W		✓	FB-1-7-17-17	4	1	1	2	3	
7-18-17	1045	GW		✓	GWC-6R	4	1	1	2	4	
7-18-17	0945	W		✓	EB-1-7-18-17	4	1	1	2	5	
7-18-17	1350	GW		✓	GWC-3R	4	1	1	2	6	
7-18-17	1550	GW		✓	GWC-2R	6	1	1	4	7	extra Rad here
7-18-17	1415	GW		✓	GWC-1R	4	1	1	2	8	
7-18-17	1245	GW		✓	GWC-4R	4	1	1	2	9	
7-18-17	—	GW		✓	DUP-1	4	1	1	2	10	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: C. Parker, J. Berrisford
DATE/TIME: 7-19-17 / 0815
RELINQUISHED BY: [signature]
DATE/TIME: 7-19-17 0925

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

FOR LAB USE ONLY
LAB #: AAG0537
Entered into LIMS: MR
Tracking #:

RECEIVED BY LAB: [signature]
DATE/TIME: 7/19/17 0925
pH Checked: Yes No NA
Temperature: Min: 3.6 °C Max
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
Custody Seal: Intact Broken Not Present: N/A
# of Coolers:
Cooler ID:

Plant Yates_COC Gypsum Storage.xlsx

nt Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Sample Condition Upon Receipt

Pace Analytical

Client Name: Georgia Power Project # AAG0537

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Optional
Proj. Due Date:
Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used IR-1 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.6 Biological Tissue is Frozen: Yes (No)

Date and Initials of person examining contents: 7/19/17 MR

Temp should be above freezing to 6°C Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.	
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.	
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.	
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.	
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.	
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.	
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.	
Sufficient Volume:	☑Yes ☐No ☐N/A	8.	
Correct Containers Used:	☑Yes ☐No ☐N/A	9.	
-Pace Containers Used:	☑Yes ☐No ☐N/A		
Containers Intact:	☑Yes ☐No ☐N/A	10.	
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.	
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.	
-Includes date/time/ID/Analysis Matrix: _____			
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.	
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.	
Trip Blank Present:	☐Yes ☐No ☑N/A	16.	
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A		
Pace Trip Blank Lot # (if purchased): _____			

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 8/11/2017 8:44:35AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 07/19/17 09:25

Work Order: AAG0537
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 10 **#Containers:** 42

Minimum Temp(C): 3.6 **Maximum Temp(C):** 3.6 **Custody Seal(s) Used:** N/A

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	N/A
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Report reissued 8/11/2017 to provide data for additional analytes per consultant request. BMcD

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

August 11, 2017

Ms. Lauren Petty
GA Power
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: AAG0537 Plant Yates
Pace Project No.: 30224715

Dear Ms. Petty:
Enclosed are the analytical results for sample(s) received by the laboratory on July 20, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: AAG0537 Plant Yates
Pace Project No.: 30224715

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: AAG0537 Plant Yates
Pace Project No.: 30224715

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30224715001	**GWA-2**	Water	07/17/17 10:45	07/20/17 10:05
30224715002	**GWC-5R**	Water	07/17/17 14:50	07/20/17 10:05
30224715003	**FB-1-7-17-17**	Water	07/17/17 15:20	07/20/17 10:05
30224715004	**GWC-6R**	Water	07/18/17 10:45	07/20/17 10:05
30224715005	**EB-1-7-18-17**	Water	07/18/17 09:45	07/20/17 10:05
30224715006	**GWC-3R**	Water	07/18/17 13:50	07/20/17 10:05
30224715007	**GWC-2R**	Water	07/18/17 15:50	07/20/17 10:05
30224715008	**GWC-1R**	Water	07/18/17 14:15	07/20/17 10:05
30224715009	**GWC-4R**	Water	07/18/17 12:45	07/20/17 10:05
30224715010	**Dup-1**	Water	07/18/17 00:00	07/20/17 10:05

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: AAG0537 Plant Yates
Pace Project No.: 30224715

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30224715001	**GWA-2**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224715002	**GWC-5R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224715003	**FB-1-7-17-17**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224715004	**GWC-6R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224715005	**EB-1-7-18-17**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224715006	**GWC-3R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224715007	**GWC-2R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224715008	**GWC-1R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224715009	**GWC-4R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224715010	**Dup-1**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAG0537 Plant Yates
Pace Project No.: 30224715

Sample: GWA-2 **Lab ID: 30224715001** Collected: 07/17/17 10:45 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.635 ± 0.273 (0.299) C:77% T:NA**	pCi/L	08/06/17 10:32	13982-63-3	
Radium-228	EPA 9320	**0.785 ± 0.434 (0.787) C:76% T:79%**	pCi/L	08/09/17 16:30	15262-20-1	
Total Radium	Total Radium Calculation	**1.42 ± 0.707 (1.09)**	pCi/L	08/10/17 17:26	7440-14-4	

Sample: GWC-5R **Lab ID: 30224715002** Collected: 07/17/17 14:50 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.301 ± 0.187 (0.269) C:86% T:NA**	pCi/L	08/06/17 10:32	13982-63-3	
Radium-228	EPA 9320	**0.227 ± 0.327 (0.704) C:80% T:82%**	pCi/L	08/09/17 16:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.528 ± 0.514 (0.973)**	pCi/L	08/10/17 17:26	7440-14-4	

Sample: FB-1-7-17-17 **Lab ID: 30224715003** Collected: 07/17/17 15:20 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.252 ± 0.164 (0.221) C:84% T:NA**	pCi/L	08/06/17 10:32	13982-63-3	
Radium-228	EPA 9320	**-0.0396 ± 0.330 (0.773) C:81% T:85%**	pCi/L	08/09/17 16:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.252 ± 0.494 (0.994)**	pCi/L	08/10/17 17:26	7440-14-4	

Sample: GWC-6R **Lab ID: 30224715004** Collected: 07/18/17 10:45 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.341 ± 0.199 (0.300) C:93% T:NA**	pCi/L	08/06/17 10:32	13982-63-3	
Radium-228	EPA 9320	**0.456 ± 0.372 (0.741) C:79% T:77%**	pCi/L	08/09/17 16:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.797 ± 0.571 (1.04)**	pCi/L	08/10/17 17:26	7440-14-4	

Sample: EB-1-7-18-17 **Lab ID: 30224715005** Collected: 07/18/17 09:45 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.229 ± 0.145 (0.195) C:85% T:NA**	pCi/L	08/07/17 08:37	13982-63-3	
Radium-228	EPA 9320	**0.303 ± 0.502 (1.09) C:80% T:76%**	pCi/L	08/09/17 19:46	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAG0537 Plant Yates
Pace Project No.: 30224715

Sample: EB-1-7-18-17 **Lab ID: 30224715005** Collected: 07/18/17 09:45 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.532 ± 0.647 (1.29)**	pCi/L	08/10/17 17:26	7440-14-4	

Sample: GWC-3R **Lab ID: 30224715006** Collected: 07/18/17 13:50 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.237 ± 0.189 (0.328) C:79% T:NA**	pCi/L	08/06/17 10:32	13982-63-3	
Radium-228	EPA 9320	**-0.132 ± 0.437 (1.05) C:79% T:81%**	pCi/L	08/09/17 19:46	15262-20-1	
Total Radium	Total Radium Calculation	**0.237 ± 0.626 (1.38)**	pCi/L	08/10/17 17:26	7440-14-4	

Sample: GWC-2R **Lab ID: 30224715007** Collected: 07/18/17 15:50 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.681 ± 0.279 (0.284) C:81% T:NA**	pCi/L	08/06/17 10:32	13982-63-3	
Radium-228	EPA 9320	**0.0270 ± 0.309 (0.724) C:82% T:80%**	pCi/L	08/09/17 18:22	15262-20-1	
Total Radium	Total Radium Calculation	**0.708 ± 0.588 (1.01)**	pCi/L	08/10/17 17:26	7440-14-4	

Sample: GWC-1R **Lab ID: 30224715008** Collected: 07/18/17 14:15 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.409 ± 0.200 (0.212) C:90% T:NA**	pCi/L	08/06/17 12:22	13982-63-3	
Radium-228	EPA 9320	**0.960 ± 0.476 (0.812) C:80% T:82%**	pCi/L	08/09/17 18:22	15262-20-1	
Total Radium	Total Radium Calculation	**1.37 ± 0.676 (1.02)**	pCi/L	08/10/17 17:26	7440-14-4	

Sample: GWC-4R **Lab ID: 30224715009** Collected: 07/18/17 12:45 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.199 ± 0.157 (0.247) C:77% T:NA**	pCi/L	08/06/17 12:22	13982-63-3	
Radium-228	EPA 9320	**-0.221 ± 0.416 (1.03) C:78% T:66%**	pCi/L	08/09/17 18:22	15262-20-1	
Total Radium	Total Radium Calculation	**0.199 ± 0.573 (1.28)**	pCi/L	08/10/17 17:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAG0537 Plant Yates
Pace Project No.: 30224715

Sample: Dup-1 **Lab ID: 30224715010** Collected: 07/18/17 00:00 Received: 07/20/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.152 ± 0.154 (0.287) C:74% T:NA**	pCi/L	08/06/17 12:22	13982-63-3	
Radium-228	EPA 9320	**-0.240 ± 0.288 (0.760) C:76% T:79%**	pCi/L	08/09/17 18:22	15262-20-1	
Total Radium	Total Radium Calculation	**0.152 ± 0.442 (1.05)**	pCi/L	08/10/17 17:26	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAG0537 Plant Yates
Pace Project No.: 30224715

QC Batch: 267090 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30224715001, 30224715002, 30224715003, 30224715004, 30224715005, 30224715006, 30224715007, 30224715008, 30224715009, 30224715010

METHOD BLANK: 1314904 Matrix: Water
Associated Lab Samples: 30224715001, 30224715002, 30224715003, 30224715004, 30224715005, 30224715006, 30224715007, 30224715008, 30224715009, 30224715010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0648 ± 0.279 (0.664) C:81% T:91%	pCi/L	08/09/17 16:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAG0537 Plant Yates
Pace Project No.: 30224715

QC Batch: 267089 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30224715001, 30224715002, 30224715003, 30224715004, 30224715005, 30224715006, 30224715007, 30224715008, 30224715009, 30224715010

METHOD BLANK: 1314903 Matrix: Water
Associated Lab Samples: 30224715001, 30224715002, 30224715003, 30224715004, 30224715005, 30224715006, 30224715007, 30224715008, 30224715009, 30224715010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.382 ± 0.192 (0.208) C:93% T:NA	pCi/L	08/06/17 10:32	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: AAG0537 Plant Yates
Pace Project No.: 30224715

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAG0537 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 8/11/2017

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

WO#:30224715

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWA-2	G	7/17/2017 10:45	AAG0537-01	GW	2	X	001
2	GWC-5R	G	7/17/2017 14:50	AAG0537-02	GW	2	X	002
3	FB-1-7-17-17	G	7/17/2017 15:20	AAG0537-03	W	2	X	003
4	GWC-6R	G	7/18/2017 10:45	AAG0537-04	GW	2	X	004
5	EB-1-7-18-17	G	7/18/2017 9:45	AAG0537-05	W	2	X	005
6	GWC-3R	G	7/18/2017 13:50	AAG0537-06	GW	2	X	006
7	GWC-2R	G	7/18/2017 15:50	AAG0537-07	GW	4	X	007
8	GWC-1R	G	7/18/2017 14:15	AAG0537-08	GW	2	X	008
9	GWC-4R	G	7/18/2017 12:45	AAG0537-09	GW	2	X	009
10	Dup-1	G	7/18/2017 0:00	AAG0537-10	GW	2	X	010

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RAHMAN	7/19/17		7/20/17 1005	
2					
3					

Cooler Temperature on Receipt N/A °C | Custody Seal Y or N | Received on Ice Y or N | Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR & Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE (MM-DD-YY)	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9316/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:							P	P	P		
PRESERVATION:							3	7	3		
7-17-17	1045	GW		✓	GWA-2	4	1	1	2	1	
7-17-17	1450	GW		✓	GWC-5R	4	1	1	2	2	30224715
7-17-17	1520	W		✓	FB-1-7-17-17	4	1	1	2	3	
7-18-17	1045	GW		✓	GWC-6R	4	1	1	2	4	
7-18-17	0945	W		✓	EB-1-7-18-17	4	1	1	2	5	
7-18-17	1350	GW		✓	GWC-3R	4	1	1	2	6	
7-18-17	1550	GW		✓	GWC-2R	6	1	1	4	7	extra Rad here
7-18-17	1415	GW		✓	GWC-1R	4	1	1	2	8	
~~7-18-17~~	~~1245~~	~~GW~~		✓	~~GWC-4R~~	~~4~~	~~1~~	~~1~~	~~2~~	9	
7-18-17	—	GW		✓	DUP-1	4	1	1	2	10	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: C. Parker, J. Beresford — DATE/TIME: 7-19-17 / 0815

RELINQUISHED BY: [signature] — DATE/TIME: 7-19-17 0925

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: [signature] — DATE/TIME: 7/19/17 0925

pH checked: (Yes) No NA — Ice: (Yes) No NA — Temperature: Min: 3.6 C Max:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (CLIENT) OTHER FS

Custody Seal: Intact Broken Not Present N/A — # of Coolers: — Cooler ID:

FOR LAB USE ONLY — LAB #: AAG0537 — Entered into LIMS: [initials] — Tracking #:

Plant Yates_COC Gypsum Storage.xlsx

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Sample Condition Upon Receipt

30224715

Pace Analytical

Client Name: Georgia Power

Project # AAG10537

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Optional
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals Intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used IR-1 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.6 Biological Tissue is Frozen: Yes (No)

Date and Initials of person examining contents: 7/19/17 NR

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.	
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.	
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.	
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.	
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.	
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.	
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.	
Sufficient Volume:	☑Yes ☐No ☐N/A	8.	
Correct Containers Used:	☑Yes ☐No ☐N/A	9.	
-Pace Containers Used:	☑Yes ☐No ☐N/A		
Containers Intact:	☑Yes ☐No ☐N/A	10.	
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.	
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.	
-Includes date/time/ID/Analysis Matrix:			
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.	
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.	
Trip Blank Present:	☐Yes ☐No ☑N/A	16.	
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3, 11September2006

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: PACE-GA

Project # 30224715

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label GA

Tracking #: 741366573684

LIMS Login AM

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals Intact: ☐ yes ☐ no

Thermometer Used _____ Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Date and initials of person examining contents: ZH 7/20/17

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC:	✓			5.
-Includes date/time/ID Matrix: WT				
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:	✓			
Containers Intact:	✓			11.
Orthophosphate field filtered				12.
Organic Samples checked for dechlorination:			✓	13.
Filtered volume received for Dissolved tests			✓	14.
All containers have been checked for preservation.	✓			15. pH<2
All containers needing preservation are found to be in compliance with EPA recommendation.	✓			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed ZH / Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	16.
Trip Blank Present:			✓	17.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr		✓		Initial when completed: ZH / Date: 7/20/17

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	8/4/2017
Worklist:	37010
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1314903
MB concentration:	0.382
M/B Counting Uncertainty:	0.184
MB MDC:	0.208
MB Numerical Performance Indicator:	4.07
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS37010	LCSD37010
Count Date:	8/7/2017	
Spike I.D.:	17-030	
Spike Concentration (pCi/mL):	80.196	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.500	
Target Conc. (pCi/L, g, F):	16.035	
Uncertainty (Calculated):	1.477	
Result (pCi/L, g, F):	13.495	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.946	
Numerical Performance Indicator:	-2.84	
Percent Recovery:	84.16%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment

Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment

Sample I.D.:	30224715001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30224715001DUP	
Sample Result (pCi/L, g, F):	0.635	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.257	
Sample Duplicate Result (pCi/L, g, F):	0.366	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.181	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	1.679	30224715001
Duplicate RPD:	53.85%	30224715001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*The method blank result is below the reporting limit for this analysis and is acceptable.

***Batch must be re-prepped due to unacceptable precision.

8/11/17

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-228
Analyst:	VAL
Date:	8/6/2017
Worklist:	37011
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1314904
MB concentration:	-0.065
M/B Counting Uncertainty:	0.279
MB MDC:	0.664
MB Numerical Performance Indicator:	-0.46
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS37011	LCSD37011
Count Date:	8/9/2017	8/9/2017
Spike I.D.:	17-005	17-005
Spike Concentration (pCi/mL):	23.847	23.847
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.803	0.805
Target Conc. (pCi/L, g, F):	5.942	5.923
Uncertainty (Calculated):	0.428	0.426
Result (pCi/L, g, F):	6.542	6.578
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.717	0.651
Numerical Performance Indicator:	1.41	1.65
Percent Recovery:	110.09%	111.06%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	LCS37011	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD37011	
Sample Result (pCi/L, g, F):	6.542	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.717	
Sample Duplicate Result (pCi/L, g, F):	6.578	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.651	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.072	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.87%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

8/11/17

Product Name: Low-Flow System

Date: 2017-07-17 10:43:42

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.375 in
Site Name	Plant Yates Gypsum	Tubing Length	51.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	47.1 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	70 mL/min
Well diameter	2 in	Total System Volume	1.592651 L
Well Total Depth	52.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	8 in
Depth to Water	41.04 ft	Total Volume Pumped	4.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:17:03	1800.00	20.75	6.09	238.87	2.28	41.60	1.24	22.98
Last 5	10:22:03	2099.97	20.78	6.07	239.90	1.44	41.70	1.00	27.38
Last 5	10:27:03	2400.03	20.63	6.06	241.55	1.50	41.70	0.81	30.54
Last 5	10:32:03	2699.97	20.20	6.05	243.25	1.75	41.70	0.74	34.14
Last 5	10:37:03	2999.97	20.12	6.03	245.33	0.88	41.80	0.76	36.72
Variance 0			-0.14	-0.01	1.65			-0.19	3.16
Variance 1			-0.43	-0.01	1.70			-0.07	3.60
Variance 2			-0.09	-0.02	2.08			0.02	2.57

Notes

Collected at 10:45. Sunny 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-18 14:16:03

Project Information:		Pump Information:	
Operator Name	J Berisford	Pump Model/Type	Peristaltic
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.17 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	35 ft
Latitude	33º 28' 0.93"		
Longitude	-84º -53' -56.01"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	31.3 ft

Well Information:		Pumping Information:	
Well ID	GWC-1R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	36.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	24.5 ft	Total Volume Pumped	4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:55:05	600.02	23.39	5.49	485.90	3.81	25.20	7.25	173.47
Last 5	14:00:05	900.02	21.36	5.49	514.44	2.52	25.50	7.71	176.39
Last 5	14:05:05	1200.01	22.11	5.50	511.86	1.29	25.50	7.64	178.01
Last 5	14:10:05	1500.00	22.13	5.51	506.38	1.83	25.50	7.70	179.49
Last 5	14:15:05	1800.00	21.86	5.50	497.50	0.84	25.50	7.70	181.25
Variance 0			0.75	0.01	-2.57			-0.07	1.62
Variance 1			0.03	0.01	-5.49			0.07	1.48
Variance 2			-0.27	-0.00	-8.88			-0.00	1.75

Notes

Sunny, sample time-1415

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-18 15:50:07

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	peri Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	42 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	38.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-2R	Final Pumping Rate	110 mL/min
Well diameter	2 in	Total System Volume	0.2774638 L
Well Total Depth	43.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3 in
Depth to Water	29.80 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:21:36	900.02	22.58	5.53	192.13	6.88	30.00	4.05	111.93
Last 5	15:26:36	1200.02	22.71	5.54	192.24	6.41	30.00	3.96	106.91
Last 5	15:31:36	1500.01	22.29	5.52	193.78	5.34	30.00	3.82	104.21
Last 5	15:36:36	1800.00	22.44	5.49	195.94	5.02	30.00	3.89	103.13
Last 5	15:46:36	2400.00	21.97	5.49	198.24	4.83	30.00	3.72	99.00
Variance 0			-0.42	-0.02	1.54			-0.14	-2.70
Variance 1			0.15	-0.03	2.16			0.06	-1.08
Variance 2			-0.47	-0.01	2.30			-0.16	-4.12

Notes

Collected at 15:50. Sunny 80s. Extra Rad here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-18 13:49:23

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	peri Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	38.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	34.0 ft

Well Information:		Pumping Information:	
Well ID	GWC-3R	Final Pumping Rate	110 mL/min
Well diameter	2 in	Total System Volume	0.2596101 L
Well Total Depth	38.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5 in
Depth to Water	30.65 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:27:34	6299.93	23.61	5.20	160.14	2.09	31.00	5.50	136.02
Last 5	13:32:34	6599.93	23.94	5.21	159.64	1.80	31.00	5.57	136.53
Last 5	13:37:34	6899.92	23.55	5.21	158.36	1.74	31.00	5.59	134.77
Last 5	13:42:34	7199.92	23.69	5.23	159.29	1.65	31.00	5.65	133.65
Last 5	13:47:34	7499.92	23.46	5.21	158.86	1.83	31.00	5.55	132.96
Variance 0			-0.39	0.00	-1.28			0.02	-1.76
Variance 1			0.14	0.02	0.93			0.06	-1.12
Variance 2			-0.23	-0.02	-0.43			-0.09	-0.69

Notes

Collected at 13:50. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-18 12:49:03

Project Information:		Pump Information:	
Operator Name	J Berisford	Pump Model/Type	Peristaltic
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates Gypsum Storage	Tubing Diameter	.17 in
Site Name	Plant Yates-Gypsum Storage	Tubing Length	30 ft
Latitude	33º 28' 2.65"		
Longitude	-84º -54' -0.17"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	26.0 ft

Well Information:		Pumping Information:	
Well ID	GWC-4R	Final Pumping Rate	175 mL/min
Well diameter	2 in	Total System Volume	0.2239027 L
Well Total Depth	31.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5 in
Depth to Water	17.71 ft	Total Volume Pumped	28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:25:26	8405.90	22.98	5.59	350.63	0.89	8.10	3.54	147.05
Last 5	12:30:26	8705.89	23.05	5.58	388.95	1.05	8.10	3.39	148.28
Last 5	12:35:26	9005.89	23.17	5.59	348.25	1.19	8.10	3.49	148.23
Last 5	12:40:26	9305.88	23.34	5.59	353.92	0.99	8.10	3.38	149.42
Last 5	12:45:26	9605.88	23.39	5.59	352.87	0.79	8.10	3.43	151.93
Variance 0			0.13	0.01	-40.70			0.11	-0.05
Variance 1			0.16	0.00	5.67			-0.12	1.19
Variance 2			0.06	-0.00	-1.05			0.05	2.50

Notes

Sunny, sample time 1245, Dup-1-7-18-17 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-17 14:51:41

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	42.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	37.0 ft

Well Information:		Pumping Information:	
Well ID	GWC-5R	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.6724638 L
Well Total Depth	42.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	32.35 ft	Total Volume Pumped	19.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:27:26	8699.92	21.91	5.22	1571.19	5.43	33.40	6.93	104.98
Last 5	14:32:26	8999.89	21.99	5.22	1571.23	4.79	33.40	6.88	105.72
Last 5	14:37:26	9299.89	21.97	5.22	1565.89	4.56	33.40	6.88	105.48
Last 5	14:42:26	9599.88	21.94	5.22	1562.02	4.03	33.40	6.89	106.49
Last 5	14:47:26	9899.88	21.31	5.21	1570.46	3.79	33.40	6.84	105.40
Variance 0			-0.02	0.01	-5.35			0.00	-0.24
Variance 1			-0.04	0.00	-3.87			0.01	1.01
Variance 2			-0.63	-0.01	8.44			-0.05	-1.09

Notes

Collected at 14:50. Sunny 80s. FB -1 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-18 10:43:43

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	52.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	46.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-6R	Final Pumping Rate	180 mL/min
Well diameter	2 in	Total System Volume	0.717098 L
Well Total Depth	51.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	39.17 ft	Total Volume Pumped	8.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:14:54	600.02	18.86	5.96	1545.68	2.43	39.50	6.13	145.44
Last 5	10:19:54	900.02	18.64	5.83	1556.17	1.22	39.50	6.02	137.35
Last 5	10:24:54	1200.02	18.75	5.80	1558.53	1.01	39.50	5.94	135.96
Last 5	10:34:53	1800.00	18.80	5.77	1556.49	1.23	39.50	5.96	133.51
Last 5	10:39:54	2100.01	18.66	5.76	1550.89	0.95	39.50	5.88	153.76
Variance 0			0.11	-0.03	2.35			-0.08	-1.38
Variance 1			0.05	-0.03	-2.04			0.02	-2.46
Variance 2			-0.15	-0.01	-5.60			-0.08	20.25

Notes

Collected at 10:45. Sunny 70s. EB-1 here at 09:45.

Grab Samples

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAJ0625
November 02, 2017
Project: CCR Event
Project #:Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

Project Manager

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-2	AAJ0625-01	Ground Water	10/16/17 11:10	10/18/17 16:57
GWC-5R	AAJ0625-02	Ground Water	10/16/17 13:35	10/18/17 16:57
FB-1-10-16-17	AAJ0625-03	Water	10/16/17 14:25	10/18/17 16:57
GWC-1R	AAJ0625-04	Ground Water	10/17/17 11:45	10/18/17 16:57
GWC-4R	AAJ0625-05	Ground Water	10/17/17 14:55	10/18/17 16:57
GWC-2R	AAJ0625-06	Ground Water	10/17/17 16:40	10/18/17 16:57
Dup-1	AAJ0625-07	Ground Water	10/17/17 00:00	10/18/17 16:57
GWC-3R	AAJ0625-08	Ground Water	10/18/17 12:55	10/18/17 16:57
GWC-6R	AAJ0625-09	Ground Water	10/18/17 14:05	10/18/17 16:57
EB-1-10-18-17	AAJ0625-10	Water	10/18/17 13:50	10/18/17 16:57

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: GWA-2
Date/Time Sampled: 10/16/2017 11:10:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0625-01
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	218	25	10	mg/L	SM 2540 C		1	10/20/17 17:55	10/20/17 17:55	7100630	JPT
Inorganic Anions											
Chloride	4.2	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 15:12	7100714	RLC
Fluoride	0.12	0.30	0.03	mg/L	EPA 300.0	J	1	10/24/17 18:42	10/25/17 15:12	7100714	RLC
Sulfate	62	5.0	0.08	mg/L	EPA 300.0		5	10/24/17 18:42	10/26/17 12:15	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Barium	0.0542	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Calcium	13.6	5.00	2.02	mg/L	EPA 6020B		50	10/20/17 13:15	10/25/17 16:07	7100609	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Cobalt	0.0034	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Thallium	0.00007	0.0010	0.00005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Lithium	0.0016	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:01	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 09:57	7100634	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: GWC-5R
Date/Time Sampled: 10/16/2017 1:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0625-02
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1080	25	10	mg/L	SM 2540 C		1	10/20/17 17:55	10/20/17 17:55	7100630	JPT
Inorganic Anions											
Chloride	9.0	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 15:34	7100714	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 15:34	7100714	RLC
Sulfate	720	50	0.85	mg/L	EPA 300.0		50	10/24/17 18:42	10/26/17 12:36	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Arsenic	0.0011	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Barium	0.0151	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Beryllium	0.0006	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Boron	0.0066	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Cadmium	0.0006	0.0010	0.0001	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Calcium	78.2	25.0	2.02	mg/L	EPA 6020B		50	10/20/17 13:15	10/25/17 16:31	7100609	CSW
Chromium	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Selenium	0.0242	0.0100	0.0018	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:25	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 10:00	7100634	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: FB-1-10-16-17
Date/Time Sampled: 10/16/2017 2:25:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAJ0625-03
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/23/17 18:35	10/23/17 18:35	7100680	JPT
Inorganic Anions											
Chloride	ND	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 16:39	7100714	RLC
Fluoride	0.72	0.30	0.03	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 16:39	7100714	RLC
Sulfate	0.28	1.0	0.02	mg/L	EPA 300.0	J	1	10/24/17 18:42	10/25/17 16:39	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:37	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 10:02	7100634	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: GWC-1R
Date/Time Sampled: 10/17/2017 11:45:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0625-04
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	381	25	10	mg/L	SM 2540 C		1	10/20/17 17:55	10/20/17 17:55	7100630	JPT
Inorganic Anions											
Chloride	31	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 17:01	7100714	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 17:01	7100714	RLC
Sulfate	180	10	0.17	mg/L	EPA 300.0		10	10/24/17 18:42	10/26/17 12:57	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Arsenic	0.0009	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Barium	0.0349	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Boron	0.0513	0.0400	0.0060	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Calcium	38.7	25.0	2.02	mg/L	EPA 6020B		50	10/20/17 13:15	10/25/17 16:48	7100609	CSW
Chromium	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Cobalt	0.0007	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Selenium	0.0030	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Lithium	0.0016	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:42	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 10:09	7100634	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: GWC-4R
Date/Time Sampled: 10/17/2017 2:55:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0625-05
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	256	25	10	mg/L	SM 2540 C		1	10/20/17 17:55	10/20/17 17:55	7100630	JPT
Inorganic Anions											
Chloride	50	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 17:24	7100714	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 17:24	7100714	RLC
Sulfate	58	5.0	0.08	mg/L	EPA 300.0		5	10/24/17 18:42	10/26/17 13:17	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Barium	0.0157	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Boron	0.804	0.0400	0.0060	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Calcium	14.3	5.00	2.02	mg/L	EPA 6020B		50	10/20/17 13:15	10/25/17 17:00	7100609	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Selenium	0.0040	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 16:54	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 10:11	7100634	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
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Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: GWC-2R
Date/Time Sampled: 10/17/2017 4:40:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0625-06
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	214	25	10	mg/L	SM 2540 C		1	10/20/17 17:55	10/20/17 17:55	7100630	JPT
Inorganic Anions											
Chloride	6.1	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 17:46	7100714	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 17:46	7100714	RLC
Sulfate	59	5.0	0.08	mg/L	EPA 300.0		5	10/24/17 18:42	10/26/17 13:38	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Barium	0.0470	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Boron	0.0168	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Calcium	9.77	5.00	2.02	mg/L	EPA 6020B		50	10/20/17 13:15	10/25/17 17:11	7100609	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Cobalt	0.0182	0.0100	0.0003	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Selenium	0.0028	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Lithium	0.0035	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:05	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 10:14	7100634	MTC

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2480 Maner Road
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Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: Dup-1
Date/Time Sampled: 10/17/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0625-07
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	301	25	10	mg/L	SM 2540 C		1	10/20/17 17:55	10/20/17 17:55	7100630	JPT
Inorganic Anions											
Chloride	50	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 18:08	7100714	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 18:08	7100714	RLC
Sulfate	57	5.0	0.08	mg/L	EPA 300.0		5	10/24/17 18:42	10/26/17 13:59	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Barium	0.0156	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Boron	0.786	0.0400	0.0060	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Calcium	14.7	5.00	2.02	mg/L	EPA 6020B		50	10/20/17 13:15	10/25/17 17:45	7100609	CSW
Chromium	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Cobalt	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Selenium	0.0041	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:40	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 10:16	7100634	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: GWC-3R
Date/Time Sampled: 10/18/2017 12:55:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0625-08
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	166	25	10	mg/L	SM 2540 C		1	10/20/17 17:55	10/20/17 17:55	7100630	JPT
Inorganic Anions											
Chloride	6.5	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 18:31	7100714	RLC
Fluoride	0.22	0.30	0.03	mg/L	EPA 300.0	J	1	10/24/17 18:42	10/25/17 18:31	7100714	RLC
Sulfate	53	5.0	0.08	mg/L	EPA 300.0		5	10/24/17 18:42	10/26/17 14:19	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Barium	0.0490	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Beryllium	0.0004	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Calcium	5.67	5.00	2.02	mg/L	EPA 6020B		50	10/20/17 13:15	10/25/17 17:57	7100609	CSW
Chromium	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Lead	0.00008	0.0050	0.00007	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Selenium	0.0047	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 17:51	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 10:19	7100634	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: GWC-6R
Date/Time Sampled: 10/18/2017 2:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0625-09
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1150	25	10	mg/L	SM 2540 C		1	10/20/17 17:55	10/20/17 17:55	7100630	JPT
Inorganic Anions											
Chloride	4.1	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 20:22	7100714	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 20:22	7100714	RLC
Sulfate	760	50	0.85	mg/L	EPA 300.0		50	10/24/17 18:42	10/26/17 14:40	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Arsenic	0.0011	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Barium	0.0757	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Calcium	118	25.0	2.02	mg/L	EPA 6020B		50	10/20/17 13:15	10/25/17 18:08	7100609	CSW
Chromium	0.0012	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Selenium	0.0037	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Lithium	0.0026	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 18:02	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 10:21	7100634	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625
Client ID: EB-1-10-18-17
Date/Time Sampled: 10/18/2017 1:50:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAJ0625-10
Date/Time Received: 10/18/2017 4:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/23/17 18:35	10/23/17 18:35	7100680	JPT
Inorganic Anions											
Chloride	ND	0.25	0.02	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 20:44	7100714	RLC
Fluoride	1.6	0.30	0.03	mg/L	EPA 300.0		1	10/24/17 18:42	10/25/17 20:44	7100714	RLC
Sulfate	0.35	1.0	0.02	mg/L	EPA 300.0	J	1	10/24/17 18:42	10/25/17 20:44	7100714	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Arsenic	0.0005	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/20/17 13:15	10/25/17 18:14	7100609	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/24/17 13:55	10/25/17 10:23	7100634	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100630 - SM 2540 C											
Blank (7100630-BLK1)						Prepared & Analyzed: 10/20/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7100630-BS1)						Prepared & Analyzed: 10/20/17					
Total Dissolved Solids	430	25	10	mg/L	400.00		108	84-108			
Duplicate (7100630-DUP1)		**Source: AAJ0625-10**				Prepared & Analyzed: 10/20/17					
Total Dissolved Solids	23	25	10	mg/L		37			47	10	QR-03, J
Batch 7100680 - SM 2540 C											
Blank (7100680-BLK1)						Prepared & Analyzed: 10/23/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7100680-BS1)						Prepared & Analyzed: 10/23/17					
Total Dissolved Solids	367	25	10	mg/L	400.00		92	84-108			
Duplicate (7100680-DUP1)		**Source: AAJ0625-03RE1**				Prepared & Analyzed: 10/23/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7100680-DUP2)		**Source: AAJ0625-10RE1**				Prepared & Analyzed: 10/23/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100714 - EPA 300.0											
Blank (7100714-BLK1)						Prepared: 10/24/17 Analyzed: 10/25/17					
Chloride	ND	0.25	0.02	mg/L							
Fluoride	ND	0.30	0.03	mg/L							
Sulfate	ND	1.0	0.02	mg/L							
LCS (7100714-BS1)						Prepared: 10/24/17 Analyzed: 10/25/17					
Chloride	10.5	0.25	0.02	mg/L	10.020		105	90-110			
Fluoride	10.8	0.30	0.03	mg/L	10.020		108	90-110			
Sulfate	10.5	1.0	0.02	mg/L	10.050		105	90-110			
Matrix Spike (7100714-MS1)			**Source: AAJ0625-02**			Prepared: 10/24/17 Analyzed: 10/25/17					
Chloride	18.9	0.25	0.02	mg/L	10.020	9.02	98	90-110			
Fluoride	11.4	0.30	0.03	mg/L	10.020	ND	114	90-110			QM-02
Sulfate	361	1.0	0.02	mg/L	10.050	383	NR	90-110			QM-05
Matrix Spike Dup (7100714-MSD1)			**Source: AAJ0625-02**			Prepared: 10/24/17 Analyzed: 10/25/17					
Chloride	18.9	0.25	0.02	mg/L	10.020	9.02	98	90-110	0.1	15	
Fluoride	11.7	0.30	0.03	mg/L	10.020	ND	116	90-110	2	15	QM-02
Sulfate	361	1.0	0.02	mg/L	10.050	383	NR	90-110	0.06	15	QM-05

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100609 - EPA 3005A											
Blank (7100609-BLK1)						Prepared: 10/20/17 Analyzed: 10/25/17					
Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							
Zinc	0.0014	0.0100	0.0012	mg/L							J
Lithium	ND	0.0500	0.0015	mg/L							
LCS (7100609-BS1)						Prepared: 10/20/17 Analyzed: 10/25/17					
Antimony	0.104	0.0030	0.0006	mg/L	0.10000		104	80-120			
Arsenic	0.0994	0.0050	0.0005	mg/L	0.10000		99	80-120			
Barium	0.0980	0.0100	0.0004	mg/L	0.10000		98	80-120			
Beryllium	0.101	0.0030	0.00009	mg/L	0.10000		101	80-120			
Cadmium	0.105	0.0010	0.0001	mg/L	0.10000		105	80-120			
Chromium	0.108	0.0100	0.0005	mg/L	0.10000		108	80-120			
Cobalt	0.100	0.0100	0.0003	mg/L	0.10000		100	80-120			
Copper	0.102	0.0250	0.0003	mg/L	0.10000		102	80-120			
Lead	0.101	0.0050	0.00007	mg/L	0.10000		101	80-120			
Nickel	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Selenium	0.102	0.0100	0.0018	mg/L	0.10000		102	80-120			
Silver	0.101	0.0100	0.0002	mg/L	0.10000		101	80-120			
Thallium	0.103	0.0010	0.00005	mg/L	0.10000		103	80-120			
Vanadium	0.108	0.0100	0.0012	mg/L	0.10000		108	80-120			
Zinc	0.103	0.0100	0.0012	mg/L	0.10000		103	80-120			
Lithium	0.104	0.0500	0.0015	mg/L	0.10000		104	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100609 - EPA 3005A											
Matrix Spike (7100609-MS1)		**Source: AAJ0625-01**				Prepared: 10/20/17 Analyzed: 10/25/17					
Antimony	0.104	0.0030	0.0006	mg/L	0.10000	ND	104	75-125			
Arsenic	0.102	0.0050	0.0005	mg/L	0.10000	ND	102	75-125			
Barium	0.154	0.0100	0.0004	mg/L	0.10000	0.0542	99	75-125			
Beryllium	0.101	0.0030	0.00009	mg/L	0.10000	ND	101	75-125			
Cadmium	0.104	0.0010	0.0001	mg/L	0.10000	ND	104	75-125			
Chromium	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Cobalt	0.104	0.0100	0.0003	mg/L	0.10000	0.0034	101	75-125			
Copper	0.101	0.0250	0.0003	mg/L	0.10000	0.0008	101	75-125			
Lead	0.102	0.0050	0.00007	mg/L	0.10000	ND	102	75-125			
Nickel	0.109	0.0100	0.0005	mg/L	0.10000	0.0042	104	75-125			
Selenium	0.101	0.0100	0.0018	mg/L	0.10000	ND	101	75-125			
Silver	0.102	0.0100	0.0002	mg/L	0.10000	ND	102	75-125			
Thallium	0.104	0.0010	0.00005	mg/L	0.10000	0.00007	104	75-125			
Vanadium	0.108	0.0100	0.0012	mg/L	0.10000	0.0015	106	75-125			
Zinc	0.104	0.0100	0.0012	mg/L	0.10000	0.0024	102	75-125			
Lithium	0.106	0.0500	0.0015	mg/L	0.10000	0.0016	105	75-125			
Matrix Spike Dup (7100609-MSD1)		**Source: AAJ0625-01**				Prepared: 10/20/17 Analyzed: 10/25/17					
Antimony	0.106	0.0030	0.0006	mg/L	0.10000	ND	106	75-125	2	20	
Arsenic	0.103	0.0050	0.0005	mg/L	0.10000	ND	103	75-125	1	20	
Barium	0.152	0.0100	0.0004	mg/L	0.10000	0.0542	97	75-125	1	20	
Beryllium	0.0997	0.0030	0.00009	mg/L	0.10000	ND	100	75-125	1	20	
Cadmium	0.103	0.0010	0.0001	mg/L	0.10000	ND	103	75-125	0.7	20	
Chromium	0.107	0.0100	0.0005	mg/L	0.10000	ND	107	75-125	3	20	
Cobalt	0.106	0.0100	0.0003	mg/L	0.10000	0.0034	103	75-125	2	20	
Copper	0.106	0.0250	0.0003	mg/L	0.10000	0.0008	105	75-125	4	20	
Lead	0.104	0.0050	0.00007	mg/L	0.10000	ND	104	75-125	2	20	
Nickel	0.111	0.0100	0.0005	mg/L	0.10000	0.0042	107	75-125	2	20	
Selenium	0.100	0.0100	0.0018	mg/L	0.10000	ND	100	75-125	0.5	20	
Silver	0.100	0.0100	0.0002	mg/L	0.10000	ND	100	75-125	1	20	
Thallium	0.105	0.0010	0.00005	mg/L	0.10000	0.00007	105	75-125	0.6	20	
Vanadium	0.110	0.0100	0.0012	mg/L	0.10000	0.0015	108	75-125	2	20	
Zinc	0.103	0.0100	0.0012	mg/L	0.10000	0.0024	101	75-125	0.6	20	
Lithium	0.104	0.0500	0.0015	mg/L	0.10000	0.0016	103	75-125	2	20	

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100609 - EPA 3005A											
Post Spike (7100609-PS1)			**Source: AAJ0625-01**			Prepared: 10/20/17 Analyzed: 10/25/17					
Antimony	99.4			ug/L	100.00	0.254	99	80-120			
Arsenic	98.1			ug/L	100.00	0.360	98	80-120			
Barium	153			ug/L	100.00	54.2	99	80-120			
Beryllium	100			ug/L	100.00	0.0145	100	80-120			
Cadmium	104			ug/L	100.00	-0.0149	104	80-120			
Chromium	103			ug/L	100.00	0.152	103	80-120			
Cobalt	104			ug/L	100.00	3.39	100	80-120			
Copper	101			ug/L	100.00	0.833	100	80-120			
Lead	98.8			ug/L	100.00	0.0317	99	80-120			
Nickel	105			ug/L	100.00	4.24	100	80-120			
Selenium	105			ug/L	100.00	1.21	104	80-120			
Silver	103			ug/L	100.00	0.0041	103	80-120			
Thallium	102			ug/L	100.00	0.0653	102	80-120			
Vanadium	110			ug/L	100.00	1.48	109	80-120			
Zinc	103			ug/L	100.00	2.41	101	80-120			
Lithium	101			ug/L	100.00	1.59	100	80-120			
Batch 7100634 - EPA 7470A											
Blank (7100634-BLK1)						Prepared: 10/24/17 Analyzed: 10/25/17					
Mercury	ND	0.00050	0.000036	mg/L							
LCS (7100634-BS1)						Prepared: 10/24/17 Analyzed: 10/25/17					
Mercury	0.00248	0.00050	0.000036	mg/L	2.5000E-3		99	80-120			
Duplicate (7100634-DUP1)			**Source: AAJ0256-16RE1**			Prepared: 10/24/17 Analyzed: 10/25/17					
Mercury	0.00289	0.00050	0.000036	mg/L		0.00264			9	20	

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0625

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100634 - EPA 7470A											
Matrix Spike (7100634-MS1)		**Source: AAJ0625-02**				Prepared: 10/24/17 Analyzed: 10/25/17					
Mercury	0.00242	0.00050	0.000036	mg/L	2.5000E-3	ND	97	75-125			
Matrix Spike Dup (7100634-MSD1)		**Source: AAJ0625-02**				Prepared: 10/24/17 Analyzed: 10/25/17					
Mercury	0.00239	0.00050	0.000036	mg/L	2.5000E-3	ND	96	75-125	1	20	
Post Spike (7100634-PS1)		**Source: AAJ0625-02**				Prepared: 10/24/17 Analyzed: 10/25/17					
Mercury	1.73			ug/L	1.6667	0.0185	103	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE:	P	P	P			
					PRESERVATION:	3	7	3			
10-16-17	1110	GW		✓	GWA-2	4	1	1	2	1	
10-16-17	1335	GW		✓	GWC-5R	4	1	1	2	2	
10-16-17	1425	W		✓	FB-1-10-16-17	4	1	1	2	3	
10-17-17	1145	GW		✓	GWC-1R	4	1	1	2	4	
10-17-17	1455	GW		✓	GWC-4R	4	1	1	2	5	
10-17-17	1640	GW		✓	GWC-2R	4	1	1	2	6	
10-17-17	—	GW		✓	DUP-1	4	1	1	2	7	
10-18-17	1255	GW		✓	GWC-3R	4	1	1	2	8	
10-18-17	1405	GW		✓	GWC-6R	6	1	1	4	9	
10-18-17	1350	W		✓	EB-1-10-18-17	4	1	1	2	10	

CONTAINER TYPE / PRESERVATION

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

SAMPLED BY AND TITLE: C. Parker Acc
DATE/TIME: 10-18-17 1640
RELINQUISHED BY: C. Parker
DATE/TIME: 10-18-17 1657

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB: M. Rahman
DATE/TIME: 10/18/17 1657

Packed: No NA
Ice: Yes No NA
Temperature: Min: 0.1 Max:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AAJ0625
Entered into LIMS: MR
Tracking #:

~~Yates State constituents Sb Ar Ba Be Cd Cr Co Cu Pb Hg Ni Se Ag Tl~~ 2017 Gypsum Storage.xlsx

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # AAJ0625

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Optional: Proj. Due Date: Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used IR-4 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.1 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/18/17 MR

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: GW				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 10/19/2017 10:48:36AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 10/18/17 16:57

Work Order: AAJ0625
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 10 **#Containers:** 42

Minimum Temp(C): 0.1 **Maximum Temp(C):** 0.1 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 14, 2017

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

Dear Mr. Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 20, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30233662001	**GWA-2**	Water	10/16/17 11:10	10/20/17 10:00
30233662002	**GWC-5R**	Water	10/16/17 13:35	10/20/17 10:00
30233662003	**FB-1-10-16-17**	Water	10/16/17 14:25	10/20/17 10:00
30233662004	**GWC-1R**	Water	10/17/17 11:45	10/20/17 10:00
30233662005	**GWC-4R**	Water	10/17/17 14:55	10/20/17 10:00
30233662006	**GWC-2R**	Water	10/17/17 16:40	10/20/17 10:00
30233662007	**Dup-1**	Water	10/17/17 00:00	10/20/17 10:00
30233662008	**GWC-3R**	Water	10/18/17 12:55	10/20/17 10:00
30233662009	**GWC-6R**	Water	10/18/17 14:05	10/20/17 10:00
30233662010	**EB-1-10-18-17**	Water	10/18/17 13:50	10/20/17 10:00

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SAMPLE ANALYTE COUNT

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30233662001	**GWA-2**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1
30233662002	**GWC-5R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1
30233662003	**FB-1-10-16-17**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1
30233662004	**GWC-1R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1
30233662005	**GWC-4R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1
30233662006	**GWC-2R**	EPA 9315	LAL	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1
30233662007	**Dup-1**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1
30233662008	**GWC-3R**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1
30233662009	**GWC-6R**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1
30233662010	**EB-1-10-18-17**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	CMC	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

Sample: GWA-2 **Lab ID: 30233662001** Collected: 10/16/17 11:10 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.918 ± 0.217 (0.194) C:81% T:NA**	pCi/L	10/25/17 13:00	13982-63-3	
Radium-228	EPA 9320	**0.249 ± 0.423 (0.922) C:73% T:73%**	pCi/L	10/30/17 14:40	15262-20-1	
Total Radium	Total Radium Calculation	**1.17 ± 0.640 (1.12)**	pCi/L	11/10/17 12:45	7440-14-4	

Sample: GWC-5R **Lab ID: 30233662002** Collected: 10/16/17 13:35 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.434 ± 0.133 (0.144) C:88% T:NA**	pCi/L	10/25/17 13:00	13982-63-3	
Radium-228	EPA 9320	**0.124 ± 0.299 (0.667) C:73% T:93%**	pCi/L	10/30/17 14:40	15262-20-1	
Total Radium	Total Radium Calculation	**0.558 ± 0.432 (0.811)**	pCi/L	11/10/17 12:34	7440-14-4	

Sample: FB-1-10-16-17 **Lab ID: 30233662003** Collected: 10/16/17 14:25 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.376 ± 0.249 (0.384) C:87% T:NA**	pCi/L	10/26/17 08:25	13982-63-3	
Radium-228	EPA 9320	**-0.105 ± 0.293 (0.706) C:70% T:101%**	pCi/L	10/30/17 14:40	15262-20-1	
Total Radium	Total Radium Calculation	**0.376 ± 0.542 (1.09)**	pCi/L	11/10/17 12:34	7440-14-4	

Sample: GWC-1R **Lab ID: 30233662004** Collected: 10/17/17 11:45 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.620 ± 0.165 (0.171) C:82% T:NA**	pCi/L	10/25/17 13:01	13982-63-3	
Radium-228	EPA 9320	**0.317 ± 0.409 (0.870) C:71% T:77%**	pCi/L	10/30/17 14:40	15262-20-1	
Total Radium	Total Radium Calculation	**0.937 ± 0.574 (1.04)**	pCi/L	11/10/17 12:34	7440-14-4	

Sample: GWC-4R **Lab ID: 30233662005** Collected: 10/17/17 14:55 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.253 ± 0.122 (0.186) C:81% T:NA**	pCi/L	10/25/17 13:01	13982-63-3	
Radium-228	EPA 9320	**0.0413 ± 0.418 (0.964) C:71% T:73%**	pCi/L	10/30/17 14:40	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

Sample: GWC-4R **Lab ID: 30233662005** Collected: 10/17/17 14:55 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.294 ± 0.540 (1.15)**	pCi/L	11/10/17 12:34	7440-14-4	

Sample: GWC-2R **Lab ID: 30233662006** Collected: 10/17/17 16:40 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.402 ± 0.164 (0.240) C:76% T:NA**	pCi/L	10/25/17 13:01	13982-63-3	
Radium-228	EPA 9320	**-0.0582 ± 0.311 (0.736) C:75% T:93%**	pCi/L	10/30/17 14:40	15262-20-1	
Total Radium	Total Radium Calculation	**0.402 ± 0.475 (0.976)**	pCi/L	11/10/17 12:34	7440-14-4	

Sample: Dup-1 **Lab ID: 30233662007** Collected: 10/17/17 00:00 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.243 ± 0.162 (0.246) C:80% T:NA**	pCi/L	10/30/17 08:10	13982-63-3	
Radium-228	EPA 9320	**0.199 ± 0.424 (0.934) C:81% T:85%**	pCi/L	10/31/17 15:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.442 ± 0.586 (1.18)**	pCi/L	11/10/17 12:34	7440-14-4	

Sample: GWC-3R **Lab ID: 30233662008** Collected: 10/18/17 12:55 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.270 ± 0.160 (0.225) C:84% T:NA**	pCi/L	10/30/17 08:10	13982-63-3	
Radium-228	EPA 9320	**0.436 ± 0.475 (0.996) C:81% T:68%**	pCi/L	10/31/17 15:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.706 ± 0.635 (1.22)**	pCi/L	11/10/17 12:34	7440-14-4	

Sample: GWC-6R **Lab ID: 30233662009** Collected: 10/18/17 14:05 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.239 ± 0.146 (0.226) C:94% T:NA**	pCi/L	10/30/17 08:10	13982-63-3	
Radium-228	EPA 9320	**-0.264 ± 0.411 (0.987) C:80% T:77%**	pCi/L	10/31/17 15:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.239 ± 0.557 (1.21)**	pCi/L	11/10/17 12:34	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

Sample: EB-1-10-18-17 **Lab ID: 30233662010** Collected: 10/18/17 13:50 Received: 10/20/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.160 ± 0.136 (0.252) C:90% T:NA**	pCi/L	10/30/17 08:10	13982-63-3	
Radium-228	EPA 9320	**-0.0260 ± 0.407 (0.940) C:80% T:80%**	pCi/L	10/31/17 15:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.160 ± 0.543 (1.19)**	pCi/L	11/10/17 12:34	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

QC Batch: 276729 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30233662007, 30233662008, 30233662009, 30233662010

METHOD BLANK: 1360113 Matrix: Water
Associated Lab Samples: 30233662007, 30233662008, 30233662009, 30233662010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0822 ± 0.415 (0.946) C:76% T:70%	pCi/L	10/31/17 11:39	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

QC Batch: 276533 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30233662001, 30233662002, 30233662003, 30233662004, 30233662005, 30233662006

METHOD BLANK: 1359226 Matrix: Water
Associated Lab Samples: 30233662001, 30233662002, 30233662003, 30233662004, 30233662005, 30233662006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.283 ± 0.360 (0.764) C:79% T:79%	pCi/L	10/30/17 14:39	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

QC Batch: 276727 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30233662007, 30233662008, 30233662009, 30233662010

METHOD BLANK: 1360112 Matrix: Water
Associated Lab Samples: 30233662007, 30233662008, 30233662009, 30233662010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.310 ± 0.164 (0.210) C:87% T:NA	pCi/L	10/30/17 08:09	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

QC Batch: 276531 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30233662001, 30233662002, 30233662003, 30233662004, 30233662005, 30233662006

METHOD BLANK: 1359224 Matrix: Water
Associated Lab Samples: 30233662001, 30233662002, 30233662003, 30233662004, 30233662005, 30233662006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.134 ± 0.0840 (0.134) C:91% T:NA	pCi/L	10/25/17 13:01	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: AAJ0625 Plant Yates
Pace Project No.: 30233662

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAJ0625 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 11/13/2017

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

WO# : 30233662

30233662

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWA-2	G	10/16/2017 11:10	AAJ0625-01	GW	2	X	001
2	GWC-5R	G	10/16/2017 13:35	AAJ0625-02	GW	2	X	002
3	FB-1-10-16-17	G	10/16/2017 14:25	AAJ0625-03	W	2	X	003
4	GWC-1R	G	10/17/2017 11:45	AAJ0625-04	GW	2	X	004
5	GWC-4R	G	10/17/2017 14:55	AAJ0625-05	GW	2	X	005
6	GWC-2R	G	10/17/2017 16:40	AAJ0625-06	GW	2	X	006
7	Dup-1	G	10/17/2017 0:00	AAJ0625-07	GW	2	X	007
8	GWC-3R	G	10/18/2017 12:55	AAJ0625-08	GW	2	X	008
9	GWC-6R	G	10/18/2017 14:05	AAJ0625-09	GW	4	X	009
10	EB-1-10-18-17	G	10/18/2017 13:50	AAJ0625-10	W	2	X	010

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RAHMAN	10/19/17	C. Carney	10/20/17 1000	
2					
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

30233662

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # AAJ0625

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other ____

Optional: Proj. Due Date: ____ Proj. Name: ____

Tracking #: ____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other ____

Thermometer Used: IR-4 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 0.1 Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 10/18/17 DR

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: GW				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No		(initial when completed) / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased): ____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ____ Date/Time: ____

Comments/ Resolution: ____

Project Manager Review: ____ Date: ____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3 11September2006

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: _____ Project # 30233662

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label COL

LIMS Login AWL

Tracking #: 749366593594

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used DA Type of Ice: Wet Blue None

Cooler Temperature Observed Temp DA °C Correction Factor: ___ °C Final Temp: ___ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/20/17 COC

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓ ✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous Compliance/NPDES sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenolics	✓ ✓			16. pH<2 Initial when completed: COL Date/time of preservation: Lot # of added preservative:
Headspace in VOA Vials (>6mm):			✓	17.
Trip Blank Present: Trip Blank Custody Seals Present			✓ ✓	18.
Rad Aqueous Samples Screened > 0.5 mrem/hr		✓		Initial when completed: COC Date: 10/20/17

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	LAL
Date:	10/25/2017
Worklist:	38364
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1359224
MB concentration:	0.134
M/B Counting Uncertainty:	0.082
MB MDC:	0.134
MB Numerical Performance Indicator:	3.21
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS38364	LCSD38364
Count Date:	10/26/2017	
Spike I.D.:	17-030	
Spike Concentration (pCi/mL):	80.189	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.512	
Target Conc. (pCi/L, g, F):	15.677	
Uncertainty (Calculated):	1.444	
Result (pCi/L, g, F):	11.987	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.170	
Numerical Performance Indicator:	-3.89	
Percent Recovery:	76.46%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30233661012	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30233661012DUP	
Sample Result (pCi/L, g, F):	0.523	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.136	
Sample Duplicate Result (pCi/L, g, F):	0.676	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.137	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.555	30233661012
Duplicate RPD:	25.50%	30233661012DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	JC2
Date:	10/26/2017
Worklist:	38405
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1360112
MB concentration:	0.310
M/B Counting Uncertainty:	0.157
MB MDC:	0.210
MB Numerical Performance Indicator:	3.87
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS38405	LCSD38405
Count Date:	10/30/2017	
Spike I.D.:	17-030	
Spike Concentration (pCi/mL):	80.188	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.502	
Target Conc. (pCi/L, g, F):	15.979	
Uncertainty (Calculated):	1.472	
Result (pCi/L, g, F):	13.843	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.946	
Numerical Performance Indicator:	-2.39	
Percent Recovery:	86.64%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30233778003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30233778003DUP	
Sample Result (pCi/L, g, F):	0.633	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.220	
Sample Duplicate Result (pCi/L, g, F):	0.740	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.248	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.633	30233778003
Duplicate RPD:	15.59%	30233778003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Quality Control Sample Performance Assessment

Pace Analytical™
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Test:	Ra-228
Analyst:	VAL
Date:	10/26/2017
Worklist:	38366
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1359226
MB concentration:	0.283
M/B Counting Uncertainty:	0.356
MB MDC:	0.764
MB Numerical Performance Indicator:	1.56
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS38366	LCSD38366
Count Date:	10/30/2017	10/30/2017
Spike I.D.:	17-033	17-033
Spike Concentration (pCi/mL):	23.151	23.151
Volume Used (mL):	0.40	0.40
Aliquot Volume (L, g, F):	0.802	0.804
Target Conc. (pCi/L, g, F):	11.549	11.525
Uncertainty (Calculated):	0.831	0.830
Result (pCi/L, g, F):	10.338	12.379
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.914	0.992
Numerical Performance Indicator:	-1.92	1.29
Percent Recovery:	89.52%	107.41%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	LCS38366	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD38366	
Sample Result (pCi/L, g, F):	10.338	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.914	
Sample Duplicate Result (pCi/L, g, F):	12.379	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.992	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-2.965	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	18.17%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Product Name: Low-Flow System

Date: 2017-10-16 11:08:53

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED Bladder
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant Yates - Gypsum Storage	Tubing Diameter	.375 in
Site Name	Plant Yates - Ash Ponds	Tubing Length	52 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	47.1 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	75 mL/min
Well diameter	2 in	Total System Volume	1.61437 L
Well Total Depth	52.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	7 in
Depth to Water	40.52 ft	Total Volume Pumped	3.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:43:21	1200.02	16.93	6.34	250.99	2.34	41.10	1.12	-25.39
Last 5	10:48:21	1500.02	17.04	6.23	249.72	2.63	41.10	0.98	-19.27
Last 5	10:53:21	1800.03	17.14	6.16	249.43	2.04	41.20	0.93	-15.18
Last 5	10:58:21	2099.92	17.36	6.13	249.66	1.77	41.20	0.80	-11.36
Last 5	11:03:21	2399.92	17.50	6.12	249.32	2.10	41.20	0.76	-8.07
Variance 0			0.10	-0.06	-0.29			-0.05	4.09
Variance 1			0.22	-0.03	0.23			-0.12	3.82
Variance 2			0.13	-0.02	-0.34			-0.05	3.28

Notes

Collected at 11:10. Cloudy 60s

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-17 11:42:54

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peripump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	31.3 ft

Well Information:		Pumping Information:	
Well ID	GWC-1R	Final Pumping Rate	140 mL/min
Well diameter	2 in	Total System Volume	0.2551467 L
Well Total Depth	36.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	7 in
Depth to Water	25.57 ft	Total Volume Pumped	9.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:20:30	2099.99	18.79	5.42	495.06	6.46	26.20	7.66	64.09
Last 5	11:25:30	2399.99	18.92	5.43	498.83	6.17	26.20	7.63	62.85
Last 5	11:30:30	2699.97	18.84	5.42	506.39	5.43	26.20	7.65	62.67
Last 5	11:35:30	2999.98	18.92	5.42	508.50	5.04	26.20	7.62	62.25
Last 5	11:40:30	3299.98	19.06	5.42	511.95	4.92	26.20	7.61	62.34
Variance 0			-0.08	-0.01	7.56			0.03	-0.18
Variance 1			0.09	0.00	2.10			-0.03	-0.42
Variance 2			0.13	-0.00	3.45			-0.01	0.09

Notes

Collected at 11:45. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-17 16:39:28

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peripump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	44 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	38.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-2R	Final Pumping Rate	140 mL/min
Well diameter	2 in	Total System Volume	0.2863906 L
Well Total Depth	43.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	28.78 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	16:16:12	1500.00	18.30	5.43	203.24	5.87	30.00	4.51	57.29
Last 5	16:21:13	1801.04	18.26	5.51	206.03	5.21	30.00	4.50	52.54
Last 5	16:26:13	2101.01	18.21	5.46	207.38	5.41	30.00	4.50	55.34
Last 5	16:31:13	2400.99	18.18	5.43	207.39	5.05	30.00	4.56	53.78
Last 5	16:36:12	2700.98	18.17	5.45	209.57	4.89	30.00	4.59	51.66
Variance 0			-0.04	-0.05	1.34			-0.01	2.80
Variance 1			-0.03	-0.03	0.02			0.06	-1.56
Variance 2			-0.02	0.02	2.18			0.03	-2.12

Notes

Collected at 16:40. Sunny 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-18 12:54:22

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.375 in
Site Name	Plant Yates Gypsum	Tubing Length	39 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	33.3 ft

Well Information:		Pumping Information:	
Well ID	GWC-3R	Final Pumping Rate	160 mL/min
Well diameter	2 in	Total System Volume	1.332027 L
Well Total Depth	38.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	6 in
Depth to Water	29.95 ft	Total Volume Pumped	18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:29:39	5099.94	19.03	5.12	190.73	3.56	30.50	7.32	81.34
Last 5	12:34:39	5399.93	19.06	5.15	197.21	3.22	30.50	7.29	79.67
Last 5	12:39:39	5699.94	19.14	5.12	184.87	4.31	30.50	7.21	80.75
Last 5	12:44:39	5999.92	19.15	5.16	186.94	3.86	30.50	7.19	79.02
Last 5	12:49:39	6299.93	19.23	5.17	186.59	3.44	30.50	7.15	78.36
Variance 0			0.08	-0.03	-12.34			-0.08	1.08
Variance 1			0.01	0.03	2.07			-0.02	-1.73
Variance 2			0.09	0.01	-0.35			-0.04	-0.65

Notes

Collected at 12:55. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-17 14:54:59

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peripump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	31 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	26 ft

Well Information:		Pumping Information:	
Well ID	GWC-4R	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.2283661 L
Well Total Depth	31.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5 in
Depth to Water	17.93 ft	Total Volume Pumped	28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:32:19	3599.97	21.00	5.52	428.18	2.20	18.30	3.63	49.35
Last 5	14:37:19	3899.97	21.03	5.52	389.81	2.88	18.30	3.65	49.39
Last 5	14:42:19	4199.97	21.33	5.54	370.55	2.07	18.40	3.71	49.38
Last 5	14:47:19	4499.97	21.34	5.53	365.49	1.60	18.30	3.76	50.72
Last 5	14:52:19	4799.95	21.40	5.52	367.99	1.35	18.30	3.69	50.89
Variance 0			0.30	0.02	-19.26			0.06	-0.01
Variance 1			0.01	-0.00	-5.06			0.04	1.33
Variance 2			0.05	-0.02	2.51			-0.07	0.18

Notes

Collected at 14:55. Sunny 60s. DUP 1 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-16 13:34:04

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED Bladder
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant Yates - Gypsum Storage	Tubing Diameter	.375 in
Site Name	Plant Yates - Ash Ponds	Tubing Length	43 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	37.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-5R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	1.418902 L
Well Total Depth	42.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	6 in
Depth to Water	30.90 ft	Total Volume Pumped	6.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:10:42	3900.46	20.93	5.15	1377.41	5.97	41.40	7.27	72.06
Last 5	13:15:42	4200.46	20.21	5.14	1365.87	5.46	41.40	7.27	70.91
Last 5	13:20:42	4500.46	19.86	5.15	1363.31	5.11	41.40	7.35	70.27
Last 5	13:25:42	4800.46	19.80	5.15	1356.69	4.92	41.40	7.35	69.54
Last 5	13:30:42	5100.46	19.95	5.16	1347.31	4.80	41.40	7.35	67.34
Variance 0			-0.35	0.01	-2.56			0.09	-0.64
Variance 1			-0.06	0.00	-6.62			-0.01	-0.73
Variance 2			0.15	0.01	-9.39			0.00	-2.19

Notes

Collected at 15:35. Sunny 60s. FB 1 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-18 14:03:07

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.375 in
Site Name	Plant Yates Gypsum	Tubing Length	52 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	46.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-6R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	1.61437 L
Well Total Depth	51.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5 in
Depth to Water	39.28 ft	Total Volume Pumped	5.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:39:28	600.02	17.59	5.77	1392.70	2.94	39.60	5.58	47.73
Last 5	13:44:28	900.01	17.54	5.78	1396.38	2.01	39.60	5.56	43.64
Last 5	13:49:28	1200.01	17.63	5.76	1393.79	1.92	39.60	5.56	41.78
Last 5	13:54:28	1500.01	17.61	5.77	1403.47	2.18	39.60	5.59	39.92
Last 5	13:59:28	1800.01	17.54	5.76	1404.64	1.81	39.60	5.64	39.00
Variance 0			0.09	-0.01	-2.59			0.01	-1.86
Variance 1			-0.02	0.01	9.67			0.03	-1.86
Variance 2			-0.06	-0.00	1.17			0.05	-0.92

Notes

Collected at 14:05. Sunny 60s. EB 1 here

Grab Samples

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

August 15, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on February 20, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

REV03292018_report revised to add Cu, Ni, and Ag data.

REV08152018_report revised to change metals units to mg/L per consultant.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Texas Certification #: T104704397-08-TX
Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Lab ID	Sample ID	Matrix	Date Collected	Date Received
262048001	**GWA-2**	Water	02/19/18 14:50	02/20/18 16:50
262048002	**GWA-2**	Water	02/19/18 14:50	02/20/18 16:50
262048003	**FB-1-2-19-18**	Water	02/19/18 16:10	02/20/18 16:50
262048004	**FB-1-2-19-18**	Water	02/19/18 16:10	02/20/18 16:50
262048005	**GWC-6R**	Water	02/19/18 16:25	02/20/18 16:50
262048006	**GWC-6R**	Water	02/19/18 16:25	02/20/18 16:50
262048007	**GWC-2R**	Water	02/20/18 11:45	02/20/18 16:50
262048008	**GWC-2R**	Water	02/20/18 11:45	02/20/18 16:50
262048009	**GWC-4R**	Water	02/20/18 14:05	02/20/18 16:50
262048010	**GWC-4R**	Water	02/20/18 14:05	02/20/18 16:50
262048011	**Dup-1**	Water	02/20/18 00:00	02/20/18 16:50
262048012	**Dup-1**	Water	02/20/18 00:00	02/20/18 16:50

Pace Analytical Services, LLC
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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
262048001	**GWA-2**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	MJP	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262048002	**GWA-2**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
262048003	**FB-1-2-19-18**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	MJP	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262048004	**FB-1-2-19-18**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
262048005	**GWC-6R**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	MJP	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262048006	**GWC-6R**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
262048007	**GWC-2R**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	MJP	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262048008	**GWC-2R**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
262048009	**GWC-4R**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	MJP	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262048010	**GWC-4R**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
262048011	**Dup-1**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	MJP	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262048012	**Dup-1**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: GWA-2 **Lab ID: 262048001** Collected: 02/19/18 14:50 Received: 02/20/18 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00060	1	02/27/18 10:06	02/28/18 15:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00052	1	02/27/18 10:06	02/28/18 15:42	7440-38-2	
Barium	**0.053**	mg/L	0.010	0.00042	1	02/27/18 10:06	02/28/18 15:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000091	1	02/27/18 10:06	02/28/18 15:42	7440-41-7	
Boron	ND	mg/L	0.040	0.0060	1	02/27/18 10:06	02/28/18 15:42	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 15:42	7440-43-9	
Calcium	ND	mg/L	25.0	2.0	50	02/27/18 10:06	02/28/18 15:54	7440-70-2	M6
Chromium	ND	mg/L	0.010	0.00045	1	02/27/18 10:06	02/28/18 15:42	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00026	1	02/27/18 10:06	02/28/18 15:42	7440-48-4	
Copper	ND	mg/L	0.025	0.00027	1	02/27/18 10:06	02/28/18 15:42	7440-50-8	
Lead	ND	mg/L	0.0050	0.000067	1	02/27/18 10:06	02/28/18 15:42	7439-92-1	
Lithium	ND	mg/L	0.050	0.0015	1	02/27/18 10:06	02/28/18 15:42	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0010	1	02/27/18 10:06	02/28/18 15:42	7439-98-7	
Nickel	ND	mg/L	0.010	0.00049	1	02/27/18 10:06	02/28/18 15:42	7440-02-0	
Selenium	ND	mg/L	0.010	0.0018	1	02/27/18 10:06	02/28/18 15:42	7782-49-2	
Silver	ND	mg/L	0.010	0.00023	1	02/27/18 10:06	02/28/18 15:42	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	02/27/18 10:06	02/28/18 15:42	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0012	1	02/27/18 10:06	02/28/18 15:42	7440-62-2	
Zinc	ND	mg/L	0.010	0.0012	1	02/27/18 10:06	02/28/18 15:42	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 17:03	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**173**	mg/L	25.0	25.0	1		02/25/18 10:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.3**	mg/L	0.25	0.024	1		02/22/18 19:58	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		02/22/18 19:58	16984-48-8	
Sulfate	**64.6**	mg/L	10.0	0.17	10		03/02/18 15:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: FB-1-2-19-18 **Lab ID: 262048003** Collected: 02/19/18 16:10 Received: 02/20/18 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00060	1	02/27/18 10:06	02/28/18 16:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00052	1	02/27/18 10:06	02/28/18 16:22	7440-38-2	
Barium	ND	mg/L	0.010	0.00042	1	02/27/18 10:06	02/28/18 16:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000091	1	02/27/18 10:06	02/28/18 16:22	7440-41-7	
Boron	ND	mg/L	0.040	0.0060	1	02/27/18 10:06	02/28/18 16:22	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 16:22	7440-43-9	
Calcium	ND	mg/L	0.50	0.040	1	02/27/18 10:06	02/28/18 16:22	7440-70-2	
Chromium	ND	mg/L	0.010	0.00045	1	02/27/18 10:06	02/28/18 16:22	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00026	1	02/27/18 10:06	02/28/18 16:22	7440-48-4	
Copper	ND	mg/L	0.025	0.00027	1	02/27/18 10:06	02/28/18 16:22	7440-50-8	
Lead	ND	mg/L	0.0050	0.000067	1	02/27/18 10:06	02/28/18 16:22	7439-92-1	
Lithium	ND	mg/L	0.050	0.0015	1	02/27/18 10:06	02/28/18 16:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0010	1	02/27/18 10:06	02/28/18 16:22	7439-98-7	
Nickel	ND	mg/L	0.010	0.00049	1	02/27/18 10:06	02/28/18 16:22	7440-02-0	
Selenium	ND	mg/L	0.010	0.0018	1	02/27/18 10:06	02/28/18 16:22	7782-49-2	
Silver	ND	mg/L	0.010	0.00023	1	02/27/18 10:06	02/28/18 16:22	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	02/27/18 10:06	02/28/18 16:22	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0012	1	02/27/18 10:06	02/28/18 16:22	7440-62-2	
Zinc	ND	mg/L	0.010	0.0012	1	02/27/18 10:06	02/28/18 16:22	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 16:54	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**25.02**	mg/L	25.0	25.0	1		02/25/18 10:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	0.25	0.024	1		02/22/18 21:00	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		02/22/18 21:00	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		02/22/18 21:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: GWC-6R **Lab ID: 262048005** Collected: 02/19/18 16:25 Received: 02/20/18 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00060	1	02/27/18 10:06	02/28/18 16:41	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00052	1	02/27/18 10:06	02/28/18 16:41	7440-38-2	
Barium	**0.070**	mg/L	0.010	0.00042	1	02/27/18 10:06	02/28/18 16:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000091	1	02/27/18 10:06	02/28/18 16:41	7440-41-7	
Boron	ND	mg/L	0.040	0.0060	1	02/27/18 10:06	02/28/18 16:41	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 16:41	7440-43-9	
Calcium	**124**	mg/L	25.0	2.0	50	02/27/18 10:06	02/28/18 16:47	7440-70-2	
Chromium	ND	mg/L	0.010	0.00045	1	02/27/18 10:06	02/28/18 16:41	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00026	1	02/27/18 10:06	02/28/18 16:41	7440-48-4	
Copper	ND	mg/L	0.025	0.00027	1	02/27/18 10:06	02/28/18 16:41	7440-50-8	
Lead	ND	mg/L	0.0050	0.000067	1	02/27/18 10:06	02/28/18 16:41	7439-92-1	
Lithium	ND	mg/L	0.050	0.0015	1	02/27/18 10:06	02/28/18 16:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0010	1	02/27/18 10:06	02/28/18 16:41	7439-98-7	
Nickel	ND	mg/L	0.010	0.00049	1	02/27/18 10:06	02/28/18 16:41	7440-02-0	
Selenium	ND	mg/L	0.010	0.0018	1	02/27/18 10:06	02/28/18 16:41	7782-49-2	
Silver	ND	mg/L	0.010	0.00023	1	02/27/18 10:06	02/28/18 16:41	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	02/27/18 10:06	02/28/18 16:41	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0012	1	02/27/18 10:06	02/28/18 16:41	7440-62-2	
Zinc	ND	mg/L	0.010	0.0012	1	02/27/18 10:06	02/28/18 16:41	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 17:05	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1070**	mg/L	50.0	50.0	1		02/25/18 10:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.4**	mg/L	0.25	0.024	1		02/22/18 21:21	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		02/22/18 21:21	16984-48-8	
Sulfate	**718**	mg/L	50.0	0.85	50		03/02/18 16:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: GWC-2R **Lab ID: 262048007** Collected: 02/20/18 11:45 Received: 02/20/18 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	02/27/18 10:06	02/28/18 16:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	02/27/18 10:06	02/28/18 16:53	7440-38-2	
Barium	**0.047**	mg/L	0.010	0.00078	1	02/27/18 10:06	02/28/18 16:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	02/27/18 10:06	02/28/18 16:53	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	02/27/18 10:06	02/28/18 16:53	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	02/27/18 10:06	02/28/18 16:53	7440-43-9	
Calcium	ND	mg/L	25.0	0.69	50	02/27/18 10:06	02/28/18 16:58	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	02/27/18 10:06	02/28/18 16:53	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	02/27/18 10:06	02/28/18 16:53	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	02/27/18 10:06	02/28/18 16:53	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	02/27/18 10:06	02/28/18 16:53	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	02/27/18 10:06	02/28/18 16:53	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 16:53	7439-98-7	
Nickel	ND	mg/L	0.010	0.00095	1	02/27/18 10:06	02/28/18 16:53	7440-02-0	
Selenium	ND	mg/L	0.010	0.0014	1	02/27/18 10:06	02/28/18 16:53	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	02/27/18 10:06	02/28/18 16:53	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 16:53	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 16:53	7440-62-2	
Zinc	ND	mg/L	0.010	0.0021	1	02/27/18 10:06	02/28/18 16:53	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 17:08	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**131**	mg/L	25.0	25.0	1		02/25/18 10:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**5.8**	mg/L	0.25	0.024	1		02/22/18 21:42	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		02/22/18 21:42	16984-48-8	
Sulfate	**55.9**	mg/L	10.0	0.17	10		03/02/18 16:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: GWC-4R **Lab ID: 262048009** Collected: 02/20/18 14:05 Received: 02/20/18 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	02/27/18 10:06	02/28/18 17:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	02/27/18 10:06	02/28/18 17:04	7440-38-2	
Barium	**0.015**	mg/L	0.010	0.00078	1	02/27/18 10:06	02/28/18 17:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	02/27/18 10:06	02/28/18 17:04	7440-41-7	
Boron	**1.0**	mg/L	0.040	0.0039	1	02/27/18 10:06	02/28/18 17:04	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	02/27/18 10:06	02/28/18 17:04	7440-43-9	
Calcium	ND	mg/L	25.0	0.69	50	02/27/18 10:06	02/28/18 17:10	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	02/27/18 10:06	02/28/18 17:04	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	02/27/18 10:06	02/28/18 17:04	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	02/27/18 10:06	02/28/18 17:04	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	02/27/18 10:06	02/28/18 17:04	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	02/27/18 10:06	02/28/18 17:04	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 17:04	7439-98-7	
Nickel	ND	mg/L	0.010	0.00095	1	02/27/18 10:06	02/28/18 17:04	7440-02-0	
Selenium	ND	mg/L	0.010	0.0014	1	02/27/18 10:06	02/28/18 17:04	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	02/27/18 10:06	02/28/18 17:04	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 17:04	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 17:04	7440-62-2	
Zinc	ND	mg/L	0.010	0.0021	1	02/27/18 10:06	02/28/18 17:04	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 17:10	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**233**	mg/L	25.0	25.0	1		02/25/18 10:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**53.1**	mg/L	2.5	0.24	10		03/02/18 17:09	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		02/22/18 22:02	16984-48-8	
Sulfate	**64.6**	mg/L	10.0	0.17	10		03/02/18 17:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: Dup-1 **Lab ID: 262048011** Collected: 02/20/18 00:00 Received: 02/20/18 16:50 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	02/27/18 10:06	02/28/18 17:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	02/27/18 10:06	02/28/18 17:16	7440-38-2	
Barium	**0.017**	mg/L	0.010	0.00078	1	02/27/18 10:06	02/28/18 17:16	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	02/27/18 10:06	02/28/18 17:16	7440-41-7	
Boron	**1.3**	mg/L	0.040	0.0039	1	02/27/18 10:06	02/28/18 17:16	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	02/27/18 10:06	02/28/18 17:16	7440-43-9	
Calcium	ND	mg/L	25.0	0.69	50	02/27/18 10:06	02/28/18 17:21	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	02/27/18 10:06	02/28/18 17:16	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	02/27/18 10:06	02/28/18 17:16	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	02/27/18 10:06	02/28/18 17:16	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	02/27/18 10:06	02/28/18 17:16	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	02/27/18 10:06	02/28/18 17:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 17:16	7439-98-7	
Nickel	ND	mg/L	0.010	0.00095	1	02/27/18 10:06	02/28/18 17:16	7440-02-0	
Selenium	ND	mg/L	0.010	0.0014	1	02/27/18 10:06	02/28/18 17:16	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	02/27/18 10:06	02/28/18 17:16	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 17:16	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 17:16	7440-62-2	
Zinc	ND	mg/L	0.010	0.0021	1	02/27/18 10:06	02/28/18 17:16	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 17:17	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**234**	mg/L	25.0	25.0	1		02/25/18 10:31		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**53.4**	mg/L	2.5	0.24	10		03/02/18 17:29	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		02/22/18 22:23	16984-48-8	
Sulfate	**67.0**	mg/L	10.0	0.17	10		03/02/18 17:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

QC Batch: 1653 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 262048001, 262048003, 262048005, 262048007, 262048009, 262048011

METHOD BLANK: 9605 Matrix: Water
Associated Lab Samples: 262048001, 262048003, 262048005, 262048007, 262048009, 262048011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	02/28/18 16:49	

LABORATORY CONTROL SAMPLE: 9606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0029	116	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9838 9839

Parameter	Units	262048003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0029	0.0029	115	117	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

QC Batch: 1650 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 262048001, 262048003, 262048005, 262048007, 262048009, 262048011

METHOD BLANK: 9599 Matrix: Water
Associated Lab Samples: 262048001, 262048003, 262048005, 262048007, 262048009, 262048011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00060	02/28/18 15:31	
Arsenic	mg/L	ND	0.0050	0.00052	02/28/18 15:31	
Barium	mg/L	ND	0.010	0.00042	02/28/18 15:31	
Beryllium	mg/L	ND	0.0030	0.000091	02/28/18 15:31	
Boron	mg/L	ND	0.040	0.0060	02/28/18 15:31	
Cadmium	mg/L	ND	0.0010	0.00014	02/28/18 15:31	
Calcium	mg/L	ND	0.50	0.040	02/28/18 15:31	
Chromium	mg/L	ND	0.010	0.00045	02/28/18 15:31	
Cobalt	mg/L	ND	0.010	0.00026	02/28/18 15:31	
Copper	mg/L	ND	0.025	0.00027	02/28/18 15:31	
Lead	mg/L	ND	0.0050	0.000067	02/28/18 15:31	
Lithium	mg/L	ND	0.050	0.0015	02/28/18 15:31	
Molybdenum	mg/L	ND	0.010	0.0010	02/28/18 15:31	
Nickel	mg/L	ND	0.010	0.00049	02/28/18 15:31	
Selenium	mg/L	ND	0.010	0.0018	02/28/18 15:31	
Silver	mg/L	ND	0.010	0.00023	02/28/18 15:31	
Thallium	mg/L	ND	0.0010	0.000052	02/28/18 15:31	
Vanadium	mg/L	ND	0.010	0.0012	02/28/18 15:31	
Zinc	mg/L	ND	0.010	0.0012	02/28/18 15:31	

LABORATORY CONTROL SAMPLE: 9600

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.11	109	80-120	
Arsenic	mg/L	.1	0.10	103	80-120	
Barium	mg/L	.1	0.11	106	80-120	
Beryllium	mg/L	.1	0.10	104	80-120	
Boron	mg/L	1	1.0	105	80-120	
Cadmium	mg/L	.1	0.10	104	80-120	
Calcium	mg/L	1	1.1	106	80-120	
Chromium	mg/L	.1	0.11	105	80-120	
Cobalt	mg/L	.1	0.10	104	80-120	
Copper	mg/L	.1	0.10	103	80-120	
Lead	mg/L	.1	0.10	103	80-120	
Lithium	mg/L	.1	0.11	105	80-120	
Molybdenum	mg/L	.1	0.11	109	80-120	
Nickel	mg/L	.1	0.10	103	80-120	
Selenium	mg/L	.1	0.10	105	80-120	
Silver	mg/L	.1	0.099	99	80-120	
Thallium	mg/L	.1	0.10	102	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

LABORATORY CONTROL SAMPLE: 9600

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vanadium	mg/L	.1	0.11	105	80-120	
Zinc	mg/L	.1	0.11	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9685 9686

Parameter	Units	262048001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	.1	.1	0.11	0.11	108	108	75-125	0	20	
Arsenic	mg/L	ND	.1	.1	0.10	0.10	104	104	75-125	0	20	
Barium	mg/L	0.053	.1	.1	0.16	0.17	102	119	75-125	10	20	
Beryllium	mg/L	ND	.1	.1	0.10	0.11	104	107	75-125	3	20	
Boron	mg/L	ND	1	1	1.0	1.2	103	117	75-125	13	20	
Cadmium	mg/L	ND	.1	.1	0.10	0.10	100	103	75-125	2	20	
Calcium	mg/L	ND	1	1	15.6J	15.4J	157	140	75-125	1	20	M6
Chromium	mg/L	ND	.1	.1	0.10	0.11	105	111	75-125	6	20	
Cobalt	mg/L	ND	.1	.1	0.10	0.11	101	109	75-125	7	20	
Copper	mg/L	ND	.1	.1	0.10	0.10	101	102	75-125	1	20	
Lead	mg/L	ND	.1	.1	0.10	0.10	101	101	75-125	0	20	
Lithium	mg/L	ND	.1	.1	0.10	0.11	102	110	75-125	7	20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.11	107	110	75-125	2	20	
Nickel	mg/L	ND	.1	.1	0.11	0.11	104	107	75-125	2	20	
Selenium	mg/L	ND	.1	.1	0.10	0.11	104	107	75-125	3	20	
Silver	mg/L	ND	.1	.1	0.094	0.095	94	95	75-125	1	20	
Thallium	mg/L	ND	.1	.1	0.10	0.10	100	101	75-125	1	20	
Vanadium	mg/L	ND	.1	.1	0.11	0.12	109	116	75-125	6	20	
Zinc	mg/L	ND	.1	.1	0.11	0.12	104	113	75-125	8	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

QC Batch: 399634 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 262048001, 262048003, 262048005, 262048007, 262048009, 262048011

METHOD BLANK: 2216627 Matrix: Water
Associated Lab Samples: 262048001, 262048003, 262048005, 262048007, 262048009, 262048011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	25.02	25.0	25.0	02/25/18 10:30	

LABORATORY CONTROL SAMPLE: 2216628

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	242	97	90-110	

SAMPLE DUPLICATE: 2216629

Parameter	Units	262048001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	173	177	2	5	

SAMPLE DUPLICATE: 2216630

Parameter	Units	92374543013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	126	127	1	5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

QC Batch: 1441 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 262048001, 262048003, 262048005, 262048007, 262048009, 262048011

METHOD BLANK: 8751 Matrix: Water
Associated Lab Samples: 262048001, 262048003, 262048005, 262048007, 262048009, 262048011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	02/22/18 18:36	
Fluoride	mg/L	ND	0.30	0.029	02/22/18 18:36	
Sulfate	mg/L	ND	1.0	0.017	02/22/18 18:36	

LABORATORY CONTROL SAMPLE: 8752

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 8753 8754

Parameter	Units	262048001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.3	10	10	14.0	14.0	97	97	90-110	0	15	
Fluoride	mg/L	ND	10	10	10.1	10.1	99	99	90-110	0	15	
Sulfate	mg/L	64.6	10	10	66.3	66.3	17	18	90-110	0	15	E

MATRIX SPIKE SAMPLE: 8755

Parameter	Units	262069003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.4	10	13.8	94	90-110	
Fluoride	mg/L	0.21J	10	9.8	96	90-110	
Sulfate	mg/L	5.2	10	14.8	96	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: GWA-2 **Lab ID: 262048002** Collected: 02/19/18 14:50 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.628 ± 0.217 (0.208) C:83% T:NA**	pCi/L	02/28/18 13:45	13982-63-3	
Radium-228	EPA 9320	**0.954 ± 0.524 (0.944) C:76% T:76%**	pCi/L	03/06/18 13:25	15262-20-1	
Total Radium	Total Radium Calculation	**1.58 ± 0.741 (1.15)**	pCi/L	03/09/18 12:47	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: FB-1-2-19-18 **Lab ID: 262048004** Collected: 02/19/18 16:10 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.243 ± 0.143 (0.217) C:88% T:NA**	pCi/L	02/28/18 13:45	13982-63-3	
Radium-228	EPA 9320	**0.672 ± 0.442 (0.830) C:79% T:74%**	pCi/L	03/06/18 13:25	15262-20-1	
Total Radium	Total Radium Calculation	**0.915 ± 0.585 (1.05)**	pCi/L	03/09/18 12:47	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: GWC-6R **Lab ID: 262048006** Collected: 02/19/18 16:25 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.287 ± 0.153 (0.217) C:85% T:NA**	pCi/L	02/28/18 13:45	13982-63-3	
Radium-228	EPA 9320	**0.686 ± 0.408 (0.738) C:78% T:81%**	pCi/L	03/06/18 13:25	15262-20-1	
Total Radium	Total Radium Calculation	**0.973 ± 0.561 (0.955)**	pCi/L	03/09/18 12:47	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: GWC-2R **Lab ID: 262048008** Collected: 02/20/18 11:45 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.496 ± 0.205 (0.243) C:75% T:NA**	pCi/L	02/28/18 13:45	13982-63-3	
Radium-228	EPA 9320	**1.14 ± 0.560 (0.955) C:77% T:71%**	pCi/L	03/06/18 13:25	15262-20-1	
Total Radium	Total Radium Calculation	**1.64 ± 0.765 (1.20)**	pCi/L	03/09/18 12:47	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: GWC-4R **Lab ID: 262048010** Collected: 02/20/18 14:05 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.310 ± 0.197 (0.341) C:84% T:NA**	pCi/L	02/28/18 13:45	13982-63-3	
Radium-228	EPA 9320	**0.716 ± 0.461 (0.865) C:76% T:79%**	pCi/L	03/06/18 13:26	15262-20-1	
Total Radium	Total Radium Calculation	**1.03 ± 0.658 (1.21)**	pCi/L	03/09/18 12:47	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Sample: Dup-1 **Lab ID: 262048012** Collected: 02/20/18 00:00 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.220 ± 0.174 (0.315) C:65% T:NA**	pCi/L	02/28/18 13:45	13982-63-3	
Radium-228	EPA 9320	**1.06 ± 0.463 (0.722) C:77% T:79%**	pCi/L	03/06/18 13:26	15262-20-1	
Total Radium	Total Radium Calculation	**1.28 ± 0.637 (1.04)**	pCi/L	03/09/18 12:47	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

QC Batch: 289269 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 262048002, 262048004, 262048006, 262048008, 262048010, 262048012

METHOD BLANK: 1417375 Matrix: Water
Associated Lab Samples: 262048002, 262048004, 262048006, 262048008, 262048010, 262048012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.147 ± 0.117 (0.204) C:89% T:NA	pCi/L	02/28/18 13:45	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

QC Batch: 289273 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 262048002, 262048004, 262048006, 262048008, 262048010, 262048012

METHOD BLANK: 1417382 Matrix: Water
Associated Lab Samples: 262048002, 262048004, 262048006, 262048008, 262048010, 262048012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.985 ± 0.481 (0.811) C:78% T:78%	pCi/L	03/06/18 13:25	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALIFIERS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

E	Analyte concentration exceeded the calibration range. The reported result is estimated.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Gypsum Storage
Pace Project No.: 262048

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
262048001	**GWA-2**	EPA 3005A	1650	EPA 6020B	1792
262048003	**FB-1-2-19-18**	EPA 3005A	1650	EPA 6020B	1792
262048005	**GWC-6R**	EPA 3005A	1650	EPA 6020B	1792
262048007	**GWC-2R**	EPA 3005A	1650	EPA 6020B	1792
262048009	**GWC-4R**	EPA 3005A	1650	EPA 6020B	1792
262048011	**Dup-1**	EPA 3005A	1650	EPA 6020B	1792
262048001	**GWA-2**	EPA 7470A	1653	EPA 7470A	1776
262048003	**FB-1-2-19-18**	EPA 7470A	1653	EPA 7470A	1776
262048005	**GWC-6R**	EPA 7470A	1653	EPA 7470A	1776
262048007	**GWC-2R**	EPA 7470A	1653	EPA 7470A	1776
262048009	**GWC-4R**	EPA 7470A	1653	EPA 7470A	1776
262048011	**Dup-1**	EPA 7470A	1653	EPA 7470A	1776
262048002	**GWA-2**	EPA 9315	289269		
262048004	**FB-1-2-19-18**	EPA 9315	289269		
262048006	**GWC-6R**	EPA 9315	289269		
262048008	**GWC-2R**	EPA 9315	289269		
262048010	**GWC-4R**	EPA 9315	289269		
262048012	**Dup-1**	EPA 9315	289269		
262048002	**GWA-2**	EPA 9320	289273		
262048004	**FB-1-2-19-18**	EPA 9320	289273		
262048006	**GWC-6R**	EPA 9320	289273		
262048008	**GWC-2R**	EPA 9320	289273		
262048010	**GWC-4R**	EPA 9320	289273		
262048012	**Dup-1**	EPA 9320	289273		
262048002	**GWA-2**	Total Radium Calculation	290744		
262048004	**FB-1-2-19-18**	Total Radium Calculation	290744		
262048006	**GWC-6R**	Total Radium Calculation	290744		
262048008	**GWC-2R**	Total Radium Calculation	290744		
262048010	**GWC-4R**	Total Radium Calculation	290744		
262048012	**Dup-1**	Total Radium Calculation	290744		
262048001	**GWA-2**	SM 2540C	399634		
262048003	**FB-1-2-19-18**	SM 2540C	399634		
262048005	**GWC-6R**	SM 2540C	399634		
262048007	**GWC-2R**	SM 2540C	399634		
262048009	**GWC-4R**	SM 2540C	399634		
262048011	**Dup-1**	SM 2540C	399634		
262048001	**GWA-2**	EPA 300.0	1441		
262048003	**FB-1-2-19-18**	EPA 300.0	1441		
262048005	**GWC-6R**	EPA 300.0	1441		
262048007	**GWC-2R**	EPA 300.0	1441		
262048009	**GWC-4R**	EPA 300.0	1441		
262048011	**Dup-1**	EPA 300.0	1441		

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR & Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)						LAB ID NUMBER
CONTAINER TYPE:								P	P	P						
PRESERVATION:								3	7	3						
2-19-18	1450	GW		✓	GWA-2	4		1	1	2						1/2
2-19-18	1610	W		✓	FB-1-2-19-18	4		1	1	2						3/4
2-19-18	1625	GW		✓	GWC-6R	4		1	1	2						5/6
2-20-18	1145	GW		✓	GWC-2R	4		1	1	2						7/8
2-20-18	1405	GW		✓	GWC-4R	4		1	1	2						9/10
2-20-18	—	GW		✓	DUP-1	4		1	1	2						11/12

CONTAINER TYPE / PRESERVATION

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: C Parker (ACC)
DATE/TIME: 2-20-18 1500
RELINQUISHED BY: C Parker
DATE/TIME: 2-20-18 1650

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: Charla Hunter
DATE/TIME: 2/20/18 1650
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTH

pH checked: Yes No NA
Ice: Yes No NA
Temperature: Min: 0.2°C Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #:
Entered into LIMS:
Tracking #:

WO# : 262048

262048

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Sample Condition Upon Receipt

Pace Analytical

Client Name: GAPower

WO# : 262048

PM: BM Due Date: 02/27/18

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

Thermometer Used THR082 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.2°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 2/20/18 CM

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: GW		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 13, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on February 22, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

REV04132018_report revised to add Cu, Ni, and Ag data.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Texas Certification #: T104704397-08-TX
Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Lab ID	Sample ID	Matrix	Date Collected	Date Received
262140001	**GWC-3R**	Water	02/21/18 11:40	02/22/18 10:00
262140002	**GWC-3R**	Water	02/21/18 11:40	02/22/18 10:00
262140003	**GWC-5R**	Water	02/21/18 13:55	02/22/18 10:00
262140004	**GWC-5R**	Water	02/21/18 13:55	02/22/18 10:00
262140005	**GWC-1R**	Water	02/21/18 16:15	02/22/18 10:00
262140006	**GWC-1R**	Water	02/21/18 16:15	02/22/18 10:00
262140007	**EB-1-2-21-18**	Water	02/21/18 15:45	02/22/18 10:00
262140008	**EB-1-2-21-18**	Water	02/21/18 15:45	02/22/18 10:00

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
262140001	**GWC-3R**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262140002	**GWC-3R**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
262140003	**GWC-5R**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262140004	**GWC-5R**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
262140005	**GWC-1R**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262140006	**GWC-1R**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
262140007	**EB-1-2-21-18**	EPA 6020B	CSW	19	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262140008	**EB-1-2-21-18**	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Sample: GWC-3R **Lab ID: 262140001** Collected: 02/21/18 11:40 Received: 02/22/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	ug/L	3.0	0.78	1	02/27/18 10:07	02/28/18 19:28	7440-36-0	
Arsenic	ND	ug/L	5.0	0.57	1	02/27/18 10:07	02/28/18 19:28	7440-38-2	
Barium	**28.5**	ug/L	10.0	0.78	1	02/27/18 10:07	02/28/18 19:28	7440-39-3	
Beryllium	ND	ug/L	3.0	0.050	1	02/27/18 10:07	02/28/18 19:28	7440-41-7	
Boron	**39.9J**	ug/L	40.0	3.9	1	02/27/18 10:07	02/28/18 19:28	7440-42-8	
Cadmium	ND	ug/L	1.0	0.093	1	02/27/18 10:07	02/28/18 19:28	7440-43-9	
Calcium	**4760**	ug/L	500	13.7	1	02/27/18 10:07	02/28/18 19:28	7440-70-2	
Chromium	ND	ug/L	10.0	1.6	1	02/27/18 10:07	02/28/18 19:28	7440-47-3	
Cobalt	ND	ug/L	10.0	0.52	1	02/27/18 10:07	02/28/18 19:28	7440-48-4	
Copper	ND	ug/L	5.0	1.3	1	02/27/18 10:07	02/28/18 19:28	7440-50-8	
Lead	ND	ug/L	5.0	0.27	1	02/27/18 10:07	02/28/18 19:28	7439-92-1	
Lithium	ND	ug/L	50.0	0.97	1	02/27/18 10:07	02/28/18 19:28	7439-93-2	
Molybdenum	ND	ug/L	10.0	1.9	1	02/27/18 10:07	02/28/18 19:28	7439-98-7	
Nickel	ND	ug/L	5.0	0.95	1	02/27/18 10:07	02/28/18 19:28	7440-02-0	
Selenium	ND	ug/L	10.0	1.4	1	02/27/18 10:07	02/28/18 19:28	7782-49-2	
Silver	ND	ug/L	5.0	0.95	1	02/27/18 10:07	02/28/18 19:28	7440-22-4	
Thallium	ND	ug/L	1.0	0.14	1	02/27/18 10:07	02/28/18 19:28	7440-28-0	
Vanadium	ND	ug/L	10.0	1.9	1	02/27/18 10:07	02/28/18 19:28	7440-62-2	
Zinc	**3.0J**	ug/L	10.0	2.1	1	02/27/18 10:07	02/28/18 19:28	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	ug/L	0.20	0.036	1	02/27/18 15:50	02/28/18 15:59	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**105**	mg/L	25.0	25.0	1		02/27/18 18:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**6.7**	mg/L	1.0	0.024	1		02/28/18 21:51	16887-00-6	
Fluoride	ND	mg/L	0.10	0.029	1		02/28/18 21:51	16984-48-8	
Sulfate	**46.7**	mg/L	25.0	0.085	5		03/06/18 04:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Sample: GWC-5R **Lab ID: 262140003** Collected: 02/21/18 13:55 Received: 02/22/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	ug/L	3.0	0.78	1	02/27/18 10:07	02/28/18 19:39	7440-36-0	
Arsenic	**0.91J**	ug/L	5.0	0.57	1	02/27/18 10:07	02/28/18 19:39	7440-38-2	
Barium	**17.4**	ug/L	10.0	0.78	1	02/27/18 10:07	02/28/18 19:39	7440-39-3	
Beryllium	ND	ug/L	3.0	0.050	1	02/27/18 10:07	02/28/18 19:39	7440-41-7	
Boron	**26.8J**	ug/L	40.0	3.9	1	02/27/18 10:07	02/28/18 19:39	7440-42-8	
Cadmium	ND	ug/L	1.0	0.093	1	02/27/18 10:07	02/28/18 19:39	7440-43-9	
Calcium	**64000**	ug/L	25000	685	50	02/27/18 10:07	02/28/18 19:45	7440-70-2	
Chromium	ND	ug/L	10.0	1.6	1	02/27/18 10:07	02/28/18 19:39	7440-47-3	
Cobalt	ND	ug/L	10.0	0.52	1	02/27/18 10:07	02/28/18 19:39	7440-48-4	
Copper	ND	ug/L	5.0	1.3	1	02/27/18 10:07	02/28/18 19:39	7440-50-8	
Lead	ND	ug/L	5.0	0.27	1	02/27/18 10:07	02/28/18 19:39	7439-92-1	
Lithium	ND	ug/L	50.0	0.97	1	02/27/18 10:07	02/28/18 19:39	7439-93-2	
Molybdenum	ND	ug/L	10.0	1.9	1	02/27/18 10:07	02/28/18 19:39	7439-98-7	
Nickel	**1.3J**	ug/L	5.0	0.95	1	02/27/18 10:07	02/28/18 19:39	7440-02-0	
Selenium	**12.7**	ug/L	10.0	1.4	1	02/27/18 10:07	02/28/18 19:39	7782-49-2	
Silver	ND	ug/L	5.0	0.95	1	02/27/18 10:07	02/28/18 19:39	7440-22-4	
Thallium	ND	ug/L	1.0	0.14	1	02/27/18 10:07	02/28/18 19:39	7440-28-0	
Vanadium	ND	ug/L	10.0	1.9	1	02/27/18 10:07	02/28/18 19:39	7440-62-2	
Zinc	**10.2**	ug/L	10.0	2.1	1	02/27/18 10:07	02/28/18 19:39	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	ug/L	0.20	0.036	1	02/27/18 15:50	02/28/18 16:35	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**830**	mg/L	50.0	50.0	1		02/27/18 18:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**5.6**	mg/L	1.0	0.024	1		02/28/18 22:12	16887-00-6	
Fluoride	ND	mg/L	0.10	0.029	1		02/28/18 22:12	16984-48-8	
Sulfate	**533**	mg/L	250	0.85	50		03/08/18 20:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Sample: GWC-1R **Lab ID: 262140005** Collected: 02/21/18 16:15 Received: 02/22/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	ug/L	3.0	0.78	1	02/27/18 10:07	02/28/18 19:51	7440-36-0	
Arsenic	ND	ug/L	5.0	0.57	1	02/27/18 10:07	02/28/18 19:51	7440-38-2	
Barium	**32.2**	ug/L	10.0	0.78	1	02/27/18 10:07	02/28/18 19:51	7440-39-3	
Beryllium	ND	ug/L	3.0	0.050	1	02/27/18 10:07	02/28/18 19:51	7440-41-7	
Boron	**37.8J**	ug/L	40.0	3.9	1	02/27/18 10:07	02/28/18 19:51	7440-42-8	
Cadmium	ND	ug/L	1.0	0.093	1	02/27/18 10:07	02/28/18 19:51	7440-43-9	
Calcium	**34300**	ug/L	25000	685	50	02/27/18 10:07	02/28/18 19:57	7440-70-2	
Chromium	ND	ug/L	10.0	1.6	1	02/27/18 10:07	02/28/18 19:51	7440-47-3	
Cobalt	ND	ug/L	10.0	0.52	1	02/27/18 10:07	02/28/18 19:51	7440-48-4	
Copper	ND	ug/L	5.0	1.3	1	02/27/18 10:07	02/28/18 19:51	7440-50-8	
Lead	ND	ug/L	5.0	0.27	1	02/27/18 10:07	02/28/18 19:51	7439-92-1	
Lithium	**1.4J**	ug/L	50.0	0.97	1	02/27/18 10:07	02/28/18 19:51	7439-93-2	
Molybdenum	ND	ug/L	10.0	1.9	1	02/27/18 10:07	02/28/18 19:51	7439-98-7	
Nickel	**1.0J**	ug/L	5.0	0.95	1	02/27/18 10:07	02/28/18 19:51	7440-02-0	
Selenium	ND	ug/L	10.0	1.4	1	02/27/18 10:07	02/28/18 19:51	7782-49-2	
Silver	ND	ug/L	5.0	0.95	1	02/27/18 10:07	02/28/18 19:51	7440-22-4	
Thallium	ND	ug/L	1.0	0.14	1	02/27/18 10:07	02/28/18 19:51	7440-28-0	
Vanadium	ND	ug/L	10.0	1.9	1	02/27/18 10:07	02/28/18 19:51	7440-62-2	
Zinc	ND	ug/L	10.0	2.1	1	02/27/18 10:07	02/28/18 19:51	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	ug/L	0.20	0.036	1	02/27/18 15:50	02/28/18 16:37	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**285**	mg/L	25.0	25.0	1		02/27/18 18:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**27.0**	mg/L	20.0	0.48	20		03/06/18 04:59	16887-00-6	B
Fluoride	ND	mg/L	0.10	0.029	1		02/28/18 22:33	16984-48-8	
Sulfate	**146**	mg/L	100	0.34	20		03/06/18 04:59	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Sample: EB-1-2-21-18 **Lab ID: 262140007** Collected: 02/21/18 15:45 Received: 02/22/18 10:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	ug/L	3.0	0.78	1	02/27/18 10:07	02/28/18 20:02	7440-36-0	
Arsenic	ND	ug/L	5.0	0.57	1	02/27/18 10:07	02/28/18 20:02	7440-38-2	
Barium	ND	ug/L	10.0	0.78	1	02/27/18 10:07	02/28/18 20:02	7440-39-3	
Beryllium	ND	ug/L	3.0	0.050	1	02/27/18 10:07	02/28/18 20:02	7440-41-7	
Boron	**11.5J**	ug/L	40.0	3.9	1	02/27/18 10:07	02/28/18 20:02	7440-42-8	
Cadmium	ND	ug/L	1.0	0.093	1	02/27/18 10:07	02/28/18 20:02	7440-43-9	
Calcium	ND	ug/L	500	13.7	1	02/27/18 10:07	02/28/18 20:02	7440-70-2	
Chromium	ND	ug/L	10.0	1.6	1	02/27/18 10:07	02/28/18 20:02	7440-47-3	
Cobalt	ND	ug/L	10.0	0.52	1	02/27/18 10:07	02/28/18 20:02	7440-48-4	
Copper	ND	ug/L	5.0	1.3	1	02/27/18 10:07	02/28/18 20:02	7440-50-8	
Lead	ND	ug/L	5.0	0.27	1	02/27/18 10:07	02/28/18 20:02	7439-92-1	
Lithium	ND	ug/L	50.0	0.97	1	02/27/18 10:07	02/28/18 20:02	7439-93-2	
Molybdenum	ND	ug/L	10.0	1.9	1	02/27/18 10:07	02/28/18 20:02	7439-98-7	
Nickel	ND	ug/L	5.0	0.95	1	02/27/18 10:07	02/28/18 20:02	7440-02-0	
Selenium	ND	ug/L	10.0	1.4	1	02/27/18 10:07	02/28/18 20:02	7782-49-2	
Silver	ND	ug/L	5.0	0.95	1	02/27/18 10:07	02/28/18 20:02	7440-22-4	
Thallium	ND	ug/L	1.0	0.14	1	02/27/18 10:07	02/28/18 20:02	7440-28-0	
Vanadium	ND	ug/L	10.0	1.9	1	02/27/18 10:07	02/28/18 20:02	7440-62-2	
Zinc	ND	ug/L	10.0	2.1	1	02/27/18 10:07	02/28/18 20:02	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	ug/L	0.20	0.036	1	02/27/18 15:50	02/28/18 16:39	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		02/27/18 18:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.060J**	mg/L	1.0	0.024	1		02/28/18 22:53	16887-00-6	B
Fluoride	ND	mg/L	0.10	0.029	1		02/28/18 22:53	16984-48-8	
Sulfate	**0.050J**	mg/L	5.0	0.017	1		02/28/18 22:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

QC Batch: 1654 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 262140001, 262140003, 262140005, 262140007

METHOD BLANK: 9608 Matrix: Water
Associated Lab Samples: 262140001, 262140003, 262140005, 262140007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.036	02/28/18 15:54	

LABORATORY CONTROL SAMPLE: 9609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.9	116	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9840 9841

Parameter	Units	262140001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	2.5	2.5	2.8	2.7	110	108	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

QC Batch: 1651 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 262140001, 262140003, 262140005, 262140007

METHOD BLANK: 9601 Matrix: Water
Associated Lab Samples: 262140001, 262140003, 262140005, 262140007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	ug/L	ND	3.0	0.78	02/28/18 18:25	
Arsenic	ug/L	ND	5.0	0.57	02/28/18 18:25	
Barium	ug/L	ND	10.0	0.78	02/28/18 18:25	
Beryllium	ug/L	ND	3.0	0.050	02/28/18 18:25	
Boron	ug/L	ND	40.0	3.9	02/28/18 18:25	
Cadmium	ug/L	ND	1.0	0.093	02/28/18 18:25	
Calcium	ug/L	ND	500	13.7	02/28/18 18:25	
Chromium	ug/L	ND	10.0	1.6	02/28/18 18:25	
Cobalt	ug/L	ND	10.0	0.52	02/28/18 18:25	
Copper	ug/L	ND	5.0	1.3	02/28/18 18:25	
Lead	ug/L	ND	5.0	0.27	02/28/18 18:25	
Lithium	ug/L	ND	50.0	0.97	02/28/18 18:25	
Molybdenum	ug/L	ND	10.0	1.9	02/28/18 18:25	
Nickel	ug/L	ND	5.0	0.95	02/28/18 18:25	
Selenium	ug/L	ND	10.0	1.4	02/28/18 18:25	
Silver	ug/L	ND	5.0	0.95	02/28/18 18:25	
Thallium	ug/L	ND	1.0	0.14	02/28/18 18:25	
Vanadium	ug/L	ND	10.0	1.9	02/28/18 18:25	
Zinc	ug/L	ND	10.0	2.1	02/28/18 18:25	

LABORATORY CONTROL SAMPLE: 9602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	ug/L	100	103	103	80-120	
Arsenic	ug/L	100	100	100	80-120	
Barium	ug/L	100	100	100	80-120	
Beryllium	ug/L	100	107	107	80-120	
Boron	ug/L	1000	1050	105	80-120	
Cadmium	ug/L	100	102	102	80-120	
Calcium	ug/L	1000	1010	101	80-120	
Chromium	ug/L	100	103	103	80-120	
Cobalt	ug/L	100	102	102	80-120	
Copper	ug/L	100	102	102	80-120	
Lead	ug/L	100	102	102	80-120	
Lithium	ug/L	100	107	107	80-120	
Molybdenum	ug/L	100	106	106	80-120	
Nickel	ug/L	100	103	103	80-120	
Selenium	ug/L	100	102	102	80-120	
Silver	ug/L	100	93.7	94	80-120	
Thallium	ug/L	100	103	103	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

LABORATORY CONTROL SAMPLE: 9602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Vanadium	ug/L	100	105	105	80-120	
Zinc	ug/L	100	105	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9687 9688

Parameter	Units	262138001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	ug/L	ND	100	100	112	113	112	113	75-125	1	20	
Arsenic	ug/L	0.96J	100	100	111	112	110	111	75-125	1	20	
Barium	ug/L	25.5	100	100	133	134	107	109	75-125	1	20	
Beryllium	ug/L	5.3	100	100	91.4	89.4	86	84	75-125	2	20	
Boron	ug/L	18600	1000	1000	19300	19600	69	103	75-125	2	20	M6
Cadmium	ug/L	2.9	100	100	105	108	102	105	75-125	3	20	
Calcium	ug/L	184000	1000	1000	187000	188000	331	354	75-125	0	20	M6
Chromium	ug/L	ND	100	100	108	110	108	110	75-125	2	20	
Cobalt	ug/L	ND	100	100	104	106	104	106	75-125	2	20	
Copper	ug/L				100	101				1	20	
Lead	ug/L	ND	100	100	95.7	96.7	96	97	75-125	1	20	
Lithium	ug/L	8.2J	100	100	93.4	93.2	85	85	75-125	0	20	
Molybdenum	ug/L	ND	100	100	115	115	115	114	75-125	0	20	
Nickel	ug/L				101	103				2	20	
Selenium	ug/L	253	100	100	377	378	124	125	75-125	0	20	
Silver	ug/L				90.4	89.7				1	20	
Thallium	ug/L	ND	100	100	97.3	97.7	97	98	75-125	0	20	
Vanadium	ug/L	ND	100	100	112	112	112	112	75-125	1	20	
Zinc	ug/L	49.5	100	100	155	160	105	111	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

QC Batch: 399936 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 262140001, 262140003, 262140005, 262140007

METHOD BLANK: 2218070 Matrix: Water
Associated Lab Samples: 262140001, 262140003, 262140005, 262140007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	02/27/18 18:50	

LABORATORY CONTROL SAMPLE: 2218071

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	234	94	90-110	

SAMPLE DUPLICATE: 2218072

Parameter	Units	92374543042 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	113	119	5	5	

SAMPLE DUPLICATE: 2218073

Parameter	Units	262140007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		5	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

QC Batch: 1766 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 262140001, 262140003, 262140005, 262140007

METHOD BLANK: 10018 Matrix: Water
Associated Lab Samples: 262140001, 262140003, 262140005, 262140007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.26J	1.0	0.024	02/28/18 19:27	
Fluoride	mg/L	ND	0.10	0.029	02/28/18 19:27	
Sulfate	mg/L	ND	5.0	0.017	02/28/18 19:27	

LABORATORY CONTROL SAMPLE: 10019

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 10020 10021

Parameter	Units	262138001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.2	10	10	16.0	15.9	97	96	90-110	1	15	
Fluoride	mg/L	ND	10	10	12.1	12.0	121	120	90-110	1	15	M1
Sulfate	mg/L	905	10	10	376	376	-5280	-5290	90-110	0	15	E

MATRIX SPIKE SAMPLE: 10022

Parameter	Units	262140001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	6.7	10	16.1	94	90-110	
Fluoride	mg/L	ND	10	10.4	104	90-110	
Sulfate	mg/L	46.7	10	51.5	48	90-110	E

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Sample: GWC-3R **Lab ID: 262140002** Collected: 02/21/18 11:40 Received: 02/22/18 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.164 ± 0.300 (0.685) C:67% T:NA**	pCi/L	03/14/18 10:13	13982-63-3	
Radium-228	EPA 9320	**0.362 ± 0.504 (1.09) C:77% T:75%**	pCi/L	03/19/18 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.526 ± 0.804 (1.78)**	pCi/L	03/21/18 13:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Sample: GWC-5R **Lab ID: 262140004** Collected: 02/21/18 13:55 Received: 02/22/18 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.241 ± 0.239 (0.446) C:71% T:NA**	pCi/L	03/14/18 10:13	13982-63-3	
Radium-228	EPA 9320	**0.893 ± 0.531 (1.02) C:77% T:81%**	pCi/L	03/19/18 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**1.13 ± 0.770 (1.47)**	pCi/L	03/21/18 13:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Sample: GWC-1R **Lab ID: 262140006** Collected: 02/21/18 16:15 Received: 02/22/18 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.738 ± 0.443 (0.681) C:47% T:NA**	pCi/L	03/14/18 10:13	13982-63-3	
Radium-228	EPA 9320	**0.0788 ± 0.470 (1.06) C:75% T:74%**	pCi/L	03/19/18 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.817 ± 0.913 (1.74)**	pCi/L	03/21/18 13:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Sample: EB-1-2-21-18 **Lab ID: 262140008** Collected: 02/21/18 15:45 Received: 02/22/18 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.197 ± 0.225 (0.456) C:81% T:NA**	pCi/L	03/14/18 10:13	13982-63-3	
Radium-228	EPA 9320	**0.597 ± 0.419 (0.814) C:75% T:79%**	pCi/L	03/19/18 12:57	15262-20-1	
Total Radium	Total Radium Calculation	**0.794 ± 0.644 (1.27)**	pCi/L	03/21/18 13:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

QC Batch: 290898 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 262140002, 262140004, 262140006, 262140008

METHOD BLANK: 1424477 Matrix: Water
Associated Lab Samples: 262140002, 262140004, 262140006, 262140008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.524 ± 0.423 (0.845) C:78% T:75%	pCi/L	03/19/18 11:52	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

QC Batch: 290896 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 262140002, 262140004, 262140006, 262140008

METHOD BLANK: 1424475 Matrix: Water
Associated Lab Samples: 262140002, 262140004, 262140006, 262140008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.418 ± 0.284 (0.409) C:64% T:NA	pCi/L	03/14/18 10:13	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-GA	Pace Analytical Services - Atlanta, GA
PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Gypsum Storage
Pace Project No.: 262140

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
262140001	**GWC-3R**	EPA 3005A	1651	EPA 6020B	1802
262140003	**GWC-5R**	EPA 3005A	1651	EPA 6020B	1802
262140005	**GWC-1R**	EPA 3005A	1651	EPA 6020B	1802
262140007	**EB-1-2-21-18**	EPA 3005A	1651	EPA 6020B	1802
262140001	**GWC-3R**	EPA 7470A	1654	EPA 7470A	1775
262140003	**GWC-5R**	EPA 7470A	1654	EPA 7470A	1775
262140005	**GWC-1R**	EPA 7470A	1654	EPA 7470A	1775
262140007	**EB-1-2-21-18**	EPA 7470A	1654	EPA 7470A	1775
262140002	**GWC-3R**	EPA 9315	290896		
262140004	**GWC-5R**	EPA 9315	290896		
262140006	**GWC-1R**	EPA 9315	290896		
262140008	**EB-1-2-21-18**	EPA 9315	290896		
262140002	**GWC-3R**	EPA 9320	290898		
262140004	**GWC-5R**	EPA 9320	290898		
262140006	**GWC-1R**	EPA 9320	290898		
262140008	**EB-1-2-21-18**	EPA 9320	290898		
262140002	**GWC-3R**	Total Radium Calculation	292016		
262140004	**GWC-5R**	Total Radium Calculation	292016		
262140006	**GWC-1R**	Total Radium Calculation	292016		
262140008	**EB-1-2-21-18**	Total Radium Calculation	292016		
262140001	**GWC-3R**	SM 2540C	399936		
262140003	**GWC-5R**	SM 2540C	399936		
262140005	**GWC-1R**	SM 2540C	399936		
262140007	**EB-1-2-21-18**	SM 2540C	399936		
262140001	**GWC-3R**	EPA 300.0	1766		
262140003	**GWC-5R**	EPA 300.0	1766		
262140005	**GWC-1R**	EPA 300.0	1766		
262140007	**EB-1-2-21-18**	EPA 300.0	1766		

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR & Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER
	CONTAINER TYPE:						P	P	P	
	PRESERVATION:						3	7	3	
2-21-18	1140	GW		✓	GWC-3R	6	1	1	4	
2-21-18	1355	GW		✓	GWC-5R	4	1	1	2	
2-21-18	1615	GW		✓	GWC-1R	4	1	1	2	
2-21-18	1545	W		✓	EB-1-2-21-18	4	1	1	2	

CONTAINER TYPE
P - PLASTIC
A - AMBER GLASS
G - CLEAR GLASS
V - VOA VIAL
S - STERILE
O - OTHER

PRESERVATION
1 - HCl, ≤6°C
2 - H_2SO_4, ≤6°C
3 - HNO_3
4 - NaOH, ≤6°C
5 - NaOH/ZnAc, ≤6°C
6 - $Na_2S_2O_3$, ≤6°C
7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER
WW - WASTEWATER
GW - GROUNDWATER
SW - SURFACE WATER
ST - STORM WATER
W - WATER
S - SOIL
SL - SLUDGE
SD - SOLID
A - AIR
L - LIQUID
P - PRODUCT

REMARKS/ADDITIONAL INFORMATION: extra Rad here

SAMPLED BY AND TITLE: G. Parker (ACC) — DATE/TIME: 2-21-18 1630

RELINQUISHED BY: — DATE/TIME: 2-22-18 1000

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY/LAB: M Lahman — DATE/TIME: 02/22/18 1000

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA — Ice: Yes No NA — Temperature: Min: 1.6 Max

Custody Seal: Intact Broken Not Present — # of Coolers — Cooler ID:

WO# : 262140

262140

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 262140

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☑ Commercial ☐ Pace ☐ Other ___

Tracking #: ___

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other ___

Thermometer Used 83

Type of Ice: (Wet) Blue None

☐ Samples on ice, cooling process has begun

Cooler Temperature 1.6

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

PM: BM **Due Date: 03/01/18**

CLIENT: GAPower-CCR

Date and Initials of person examining contents: 2/22/18 MR

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.	
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.	
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.	
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.	
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.	
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.	
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.	
Sufficient Volume:	☑Yes ☐No ☐N/A	8.	
Correct Containers Used:	☑Yes ☐No ☐N/A	9.	
-Pace Containers Used:	☑Yes ☐No ☐N/A		
Containers Intact:	☑Yes ☐No ☐N/A	10.	
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.	
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.	
-Includes date/time/ID/Analysis Matrix: GW			
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.	
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.	
Trip Blank Present:	☐Yes ☐No ☑N/A	16.	
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ___ Date/Time: ___

Comments/ Resolution: ___

Project Manager Review: ___ **Date:** ___

Note: Whenever there is a discrepancy affecting North Carolina compliance samples a copy of this form will be sent to the North Carolina DEHNR Certification Office (i e out of hold, incorrect preservative, out of temp, incorrect containers)

Product Name: Low-Flow System

Date: 2018-02-19 14:51:49

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	55 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	47.1 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	80 mL/min
Well diameter	2 in	Total System Volume	0.7304883 L
Well Total Depth	52.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	40.68 ft	Total Volume Pumped	6.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:28:36	3299.97	20.26	6.18	255.48	0.69	41.60	1.05	77.12
Last 5	14:33:36	3599.96	20.97	6.23	256.03	0.67	41.60	0.95	72.06
Last 5	14:38:36	3899.96	20.75	6.19	255.52	0.69	41.60	0.84	73.02
Last 5	14:43:36	4199.95	20.28	6.12	256.45	0.59	41.70	0.73	74.81
Last 5	14:48:36	4499.96	19.99	6.13	257.08	0.64	41.70	0.65	72.51
Variance 0			-0.22	-0.04	-0.51			-0.12	0.96
Variance 1			-0.47	-0.07	0.93			-0.11	1.79
Variance 2			-0.28	0.01	0.62			-0.08	-2.29

Notes

Collected at 14:50. Sunny 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-21 16:14:54

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peripump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	31.3 ft

Well Information:		Pumping Information:	
Well ID	GWC-1R	Final Pumping Rate	120 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	36.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9 in
Depth to Water	25.14 ft	Total Volume Pumped	4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:50:06	1200.02	19.41	5.24	410.03	1.03	25.80	7.07	113.51
Last 5	15:55:06	1500.00	18.98	5.22	415.99	0.99	25.80	7.50	112.21
Last 5	16:00:06	1800.00	19.02	5.38	424.62	1.14	25.90	7.21	103.05
Last 5	16:05:10	2103.99	19.24	5.35	434.01	0.99	25.90	7.05	103.96
Last 5	16:10:10	2403.99	19.34	5.39	435.07	1.08	25.90	7.02	101.02
Variance 0			0.04	0.16	8.63			-0.29	-9.16
Variance 1			0.22	-0.03	9.39			-0.17	0.91
Variance 2			0.10	0.04	1.06			-0.03	-2.94

Notes

Collected at 16:15. Cloudy 70s. EB-1 here at 15:45.

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-20 11:46:56

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peripump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	45.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	38.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-2R	Final Pumping Rate	130 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	43.80 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3 in
Depth to Water	30.05 ft	Total Volume Pumped	15.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:23:49	5700.92	18.10	5.53	189.75	6.14	30.20	4.77	93.34
Last 5	11:28:50	6001.92	18.10	5.41	190.22	5.97	30.20	4.81	99.46
Last 5	11:33:50	6301.91	18.12	5.50	189.83	5.32	30.20	4.83	94.24
Last 5	11:38:52	6603.90	18.15	5.48	190.21	5.05	30.20	4.80	95.31
Last 5	11:43:52	6903.89	18.26	5.52	189.86	4.86	30.20	4.72	93.00
Variance 0			0.02	0.09	-0.39			0.02	-5.22
Variance 1			0.03	-0.02	0.37			-0.03	1.07
Variance 2			0.11	0.04	-0.35			-0.08	-2.32

Notes

Collected at 11:45. Cloudy 60s

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-21 11:36:43

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	38.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	33.3 ft

Well Information:		Pumping Information:	
Well ID	GWC-3R	Final Pumping Rate	160 mL/min
Well diameter	2 in	Total System Volume	0.6546101 L
Well Total Depth	38.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	8 in
Depth to Water	30.63 ft	Total Volume Pumped	15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:04:15	3299.96	18.25	5.26	177.70	1.21	31.30	7.01	116.67
Last 5	11:14:15	3899.95	18.26	5.16	174.88	1.05	31.30	7.01	120.72
Last 5	11:19:15	4199.94	18.22	5.15	173.22	0.97	31.30	7.00	120.78
Last 5	11:24:15	4499.94	18.25	5.17	171.71	0.76	31.30	7.00	119.08
Last 5	11:29:15	4799.93	18.21	5.15	170.57	0.82	31.30	7.00	119.64
Variance 0			-0.03	-0.01	-1.65			-0.01	0.06
Variance 1			0.03	0.02	-1.52			-0.00	-1.70
Variance 2			-0.05	-0.02	-1.14			-0.00	0.56

Notes

Collected at 11:40. Cloudy 70s. Extra Rad here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-20 14:03:29

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peripump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	33 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	26.0 ft

Well Information:		Pumping Information:	
Well ID	GWC-4R	Final Pumping Rate	170 mL/min
Well diameter	2 in	Total System Volume	0.237293 L
Well Total Depth	31.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	6 in
Depth to Water	17.38 ft	Total Volume Pumped	16.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:36:23	3902.97	19.50	5.58	556.19	0.77	17.80	2.77	116.01
Last 5	13:41:23	4202.97	19.75	5.60	498.41	0.71	17.80	2.95	110.92
Last 5	13:46:23	4502.97	19.77	5.57	500.90	1.05	17.80	3.10	110.71
Last 5	13:51:23	4802.95	19.67	5.58	512.24	0.87	17.80	3.20	108.82
Last 5	13:56:23	5102.95	19.87	5.51	424.47	1.31	17.80	3.35	109.84
Variance 0			0.02	-0.03	2.49			0.15	-0.20
Variance 1			-0.10	0.01	11.34			0.10	-1.90
Variance 2			0.20	-0.06	-87.76			0.15	1.03

Notes

Collected at 14:05. Sunny 70s. DUP 1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-21 13:53:42

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	42.8 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	37.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-5R	Final Pumping Rate	60 mL/min
Well diameter	2 in	Total System Volume	0.6760345 L
Well Total Depth	42.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5 in
Depth to Water	31.31 ft	Total Volume Pumped	3.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:29:16	1499.99	19.61	5.15	1251.85	6.93	31.70	7.56	120.42
Last 5	13:34:16	1799.99	19.68	5.15	1240.45	7.64	31.70	7.51	120.57
Last 5	13:39:16	2099.98	19.83	5.18	1227.41	5.43	31.70	7.51	118.42
Last 5	13:44:16	2399.99	19.99	5.18	1215.37	4.60	31.70	7.49	117.58
Last 5	13:49:16	2699.98	19.91	5.18	1201.03	3.96	31.70	7.50	117.81
Variance 0			0.15	0.03	-13.03			-0.01	-2.15
Variance 1			0.16	0.01	-12.04			-0.02	-0.83
Variance 2			-0.08	-0.01	-14.34			0.01	0.23

Notes

Collected at 13:55. Cloudy 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-19 16:25:44

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	55.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	46.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-6R	Final Pumping Rate	170 mL/min
Well diameter	2 in	Total System Volume	0.7304883 L
Well Total Depth	51.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5 in
Depth to Water	39.52 ft	Total Volume Pumped	7.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:53:34	600.01	17.92	5.83	1258.83	0.64	39.90	5.60	85.29
Last 5	15:58:34	900.00	17.72	5.88	1276.02	0.56	39.90	5.29	79.41
Last 5	16:03:34	1200.00	17.81	5.90	1286.51	0.67	39.90	5.25	77.84
Last 5	16:13:34	1800.00	17.71	5.90	1294.97	0.56	39.90	5.24	77.16
Last 5	16:18:34	2100.00	17.67	5.86	1304.60	0.50	39.90	5.36	78.47
Variance 0			0.09	0.02	10.49			-0.04	-1.57
Variance 1			-0.10	0.00	8.46			-0.01	-0.69
Variance 2			-0.04	-0.04	9.63			0.12	1.32

Notes

Collected at 16:25. Cloudy 70s. FB-1-2-19-18 here.

Grab Samples

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

August 17, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 09, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Texas Certification #: T104704397-08-TX
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Lab ID	Sample ID	Matrix	Date Collected	Date Received
268070001	**GWA-2**	Water	08/06/18 13:10	08/09/18 13:30
268070002	**GWC-6R**	Water	08/06/18 14:30	08/09/18 13:30
268070003	**Dup-1**	Water	08/06/18 00:00	08/09/18 13:30
268070004	**GWC-3R**	Water	08/07/18 10:20	08/09/18 13:30
268070005	**FB-1-8-7-18**	Water	08/07/18 08:55	08/09/18 13:30
268070006	**GWC-1R**	Water	08/07/18 13:25	08/09/18 13:30
268070007	**GWC-5R**	Water	08/07/18 11:50	08/09/18 13:30
268070008	**GWC-4R**	Water	08/08/18 12:25	08/09/18 13:30
268070009	**GWC-2R**	Water	08/08/18 13:30	08/09/18 13:30
268070010	**EB-1-8-8-18**	Water	08/08/18 13:15	08/09/18 13:30

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Lab ID	Sample ID	Method	Analysts	Analytes Reported
268070001	**GWA-2**	EPA 6020B	CSW	19
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
268070002	**GWC-6R**	EPA 6020B	CSW	19
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
268070003	**Dup-1**	EPA 6020B	CSW	19
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
268070004	**GWC-3R**	EPA 6020B	CSW	19
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
268070005	**FB-1-8-7-18**	EPA 6020B	CSW	19
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
268070006	**GWC-1R**	EPA 6020B	CSW	19
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
268070007	**GWC-5R**	EPA 6020B	CSW	19
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
268070008	**GWC-4R**	EPA 6020B	CSW	19
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
268070009	**GWC-2R**	EPA 6020B	CSW	19
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
268070010	**EB-1-8-8-18**	EPA 6020B	CSW	19

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: GWA-2 **Lab ID: 268070001** Collected: 08/06/18 13:10 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 13:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 13:07	7440-38-2	
Barium	**0.044**	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 13:07	7440-39-3	
Beryllium	ND	mg/L	0.015	0.00025	5	08/13/18 12:38	08/15/18 14:09	7440-41-7	D3
Boron	ND	mg/L	0.20	0.020	5	08/13/18 12:38	08/15/18 14:09	7440-42-8	D3
Cadmium	ND	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 13:07	7440-43-9	
Calcium	**11.4J**	mg/L	25.0	0.69	50	08/13/18 12:38	08/14/18 13:13	7440-70-2	D3
Chromium	ND	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 13:07	7440-47-3	
Cobalt	**0.0030J**	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 13:07	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 13:07	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 13:07	7439-92-1	
Lithium	ND	mg/L	0.25	0.0049	5	08/13/18 12:38	08/15/18 14:09	7439-93-2	D3
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 13:07	7439-98-7	
Nickel	**0.0030J**	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 13:07	7440-02-0	
Selenium	ND	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 13:07	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 13:07	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 13:07	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 13:07	7440-62-2	
Zinc	**0.0037J**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 13:07	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 09:25	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**158**	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.8**	mg/L	0.25	0.024	1		08/14/18 20:48	16887-00-6	
Fluoride	**0.087J**	mg/L	0.30	0.029	1		08/14/18 20:48	16984-48-8	
Sulfate	**42.1**	mg/L	1.0	0.017	1		08/14/18 20:48	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: GWC-6R **Lab ID: 268070002** Collected: 08/06/18 14:30 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 13:18	7440-36-0	
Arsenic	**0.0023J**	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 13:18	7440-38-2	
Barium	**0.076**	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 13:18	7440-39-3	
Beryllium	ND	mg/L	0.015	0.00025	5	08/13/18 12:38	08/15/18 14:15	7440-41-7	D3
Boron	ND	mg/L	0.20	0.020	5	08/13/18 12:38	08/15/18 14:15	7440-42-8	D3
Cadmium	ND	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 13:18	7440-43-9	
Calcium	**173**	mg/L	25.0	0.69	50	08/13/18 12:38	08/14/18 13:24	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 13:18	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 13:18	7440-48-4	
Copper	**0.0016J**	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 13:18	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 13:18	7439-92-1	
Lithium	ND	mg/L	0.25	0.0049	5	08/13/18 12:38	08/15/18 14:15	7439-93-2	D3
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 13:18	7439-98-7	
Nickel	**0.0026J**	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 13:18	7440-02-0	
Selenium	**0.0047J**	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 13:18	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 13:18	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 13:18	7440-28-0	
Vanadium	**0.0029J**	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 13:18	7440-62-2	
Zinc	**0.0040J**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 13:18	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 09:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1260**	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.9**	mg/L	0.25	0.024	1		08/14/18 21:50	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/14/18 21:50	16984-48-8	
Sulfate	**797**	mg/L	50.0	0.85	50		08/15/18 03:41	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: Dup-1 **Lab ID: 268070003** Collected: 08/06/18 00:00 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 13:30	7440-36-0	
Arsenic	**0.0027J**	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 13:30	7440-38-2	
Barium	**0.075**	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 13:30	7440-39-3	
Beryllium	ND	mg/L	0.015	0.00025	5	08/13/18 12:38	08/15/18 14:21	7440-41-7	D3
Boron	ND	mg/L	0.20	0.020	5	08/13/18 12:38	08/15/18 14:21	7440-42-8	D3
Cadmium	ND	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 13:30	7440-43-9	
Calcium	**171**	mg/L	25.0	0.69	50	08/13/18 12:38	08/14/18 13:35	7440-70-2	
Chromium	**0.0016J**	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 13:30	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 13:30	7440-48-4	
Copper	**0.0017J**	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 13:30	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 13:30	7439-92-1	
Lithium	ND	mg/L	0.25	0.0049	5	08/13/18 12:38	08/15/18 14:21	7439-93-2	D3
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 13:30	7439-98-7	
Nickel	**0.0026J**	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 13:30	7440-02-0	
Selenium	**0.0046J**	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 13:30	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 13:30	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 13:30	7440-28-0	
Vanadium	**0.0034J**	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 13:30	7440-62-2	
Zinc	**0.0047J**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 13:30	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 09:58	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1230**	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.9**	mg/L	0.25	0.024	1		08/14/18 22:10	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/14/18 22:10	16984-48-8	
Sulfate	**849**	mg/L	20.0	0.34	20		08/16/18 16:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: GWC-3R **Lab ID: 268070004** Collected: 08/07/18 10:20 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 13:41	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 13:41	7440-38-2	
Barium	**0.029**	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 13:41	7440-39-3	
Beryllium	**0.00026J**	mg/L	0.0030	0.000050	1	08/13/18 12:38	08/14/18 13:41	7440-41-7	
Boron	**0.0049J**	mg/L	0.040	0.0039	1	08/13/18 12:38	08/14/18 13:41	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 13:41	7440-43-9	
Calcium	**4.7**	mg/L	0.50	0.014	1	08/13/18 12:38	08/14/18 13:41	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 13:41	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 13:41	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 13:41	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 13:41	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	08/13/18 12:38	08/14/18 13:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 13:41	7439-98-7	
Nickel	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 13:41	7440-02-0	
Selenium	**0.0016J**	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 13:41	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 13:41	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 13:41	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 13:41	7440-62-2	
Zinc	**0.0036J**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 13:41	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 10:00	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**99.0**	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**6.3**	mg/L	0.25	0.024	1		08/14/18 22:31	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/14/18 22:31	16984-48-8	
Sulfate	**38.8**	mg/L	1.0	0.017	1		08/14/18 22:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: FB-1-8-7-18 **Lab ID: 268070005** Collected: 08/07/18 08:55 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 14:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 14:05	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 14:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	08/13/18 12:38	08/14/18 14:05	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	08/13/18 12:38	08/14/18 14:05	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 14:05	7440-43-9	
Calcium	**0.025J**	mg/L	0.50	0.014	1	08/13/18 12:38	08/14/18 14:05	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 14:05	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 14:05	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 14:05	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 14:05	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	08/13/18 12:38	08/14/18 14:05	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:05	7439-98-7	
Nickel	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:05	7440-02-0	
Selenium	ND	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 14:05	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:05	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 14:05	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:05	7440-62-2	
Zinc	**0.0023J**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 14:05	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 10:03	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.11J**	mg/L	0.25	0.024	1		08/14/18 22:52	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/14/18 22:52	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		08/14/18 22:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: GWC-1R **Lab ID: 268070006** Collected: 08/07/18 13:25 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 14:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 14:11	7440-38-2	
Barium	**0.025**	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 14:11	7440-39-3	
Beryllium	**0.000074J**	mg/L	0.0030	0.000050	1	08/13/18 12:38	08/14/18 14:11	7440-41-7	
Boron	**0.043**	mg/L	0.040	0.0039	1	08/13/18 12:38	08/14/18 14:11	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 14:11	7440-43-9	
Calcium	**26.2**	mg/L	25.0	0.69	50	08/13/18 12:38	08/14/18 14:17	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 14:11	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 14:11	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 14:11	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 14:11	7439-92-1	
Lithium	**0.0010J**	mg/L	0.050	0.00097	1	08/13/18 12:38	08/14/18 14:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:11	7439-98-7	
Nickel	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:11	7440-02-0	
Selenium	ND	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 14:11	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:11	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 14:11	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:11	7440-62-2	
Zinc	**0.0044J**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 14:11	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 10:05	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**242**	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**35.4**	mg/L	0.25	0.024	1		08/14/18 23:12	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/14/18 23:12	16984-48-8	
Sulfate	**100**	mg/L	20.0	0.34	20		08/15/18 04:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: GWC-5R **Lab ID: 268070007** Collected: 08/07/18 11:50 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 14:23	7440-36-0	
Arsenic	**0.0021J**	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 14:23	7440-38-2	
Barium	**0.015**	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 14:23	7440-39-3	
Beryllium	**0.00096J**	mg/L	0.0030	0.000050	1	08/13/18 12:38	08/14/18 14:23	7440-41-7	
Boron	**0.012J**	mg/L	0.040	0.0039	1	08/13/18 12:38	08/14/18 14:23	7440-42-8	
Cadmium	**0.00083J**	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 14:23	7440-43-9	
Calcium	**83.0**	mg/L	25.0	0.69	50	08/13/18 12:38	08/14/18 14:28	7440-70-2	
Chromium	**0.0024J**	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 14:23	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 14:23	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 14:23	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 14:23	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	08/13/18 12:38	08/14/18 14:23	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:23	7439-98-7	
Nickel	**0.0019J**	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:23	7440-02-0	
Selenium	**0.021**	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 14:23	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:23	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 14:23	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:23	7440-62-2	
Zinc	**0.015**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 14:23	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 10:07	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1180**	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.7**	mg/L	0.25	0.024	1		08/14/18 23:33	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/14/18 23:33	16984-48-8	
Sulfate	**784**	mg/L	50.0	0.85	50		08/15/18 06:26	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: GWC-4R **Lab ID: 268070008** Collected: 08/08/18 12:25 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 14:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 14:34	7440-38-2	
Barium	**0.019**	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 14:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	08/13/18 12:38	08/14/18 14:34	7440-41-7	
Boron	**1.3**	mg/L	0.040	0.0039	1	08/13/18 12:38	08/14/18 14:34	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 14:34	7440-43-9	
Calcium	**22.1J**	mg/L	25.0	0.69	50	08/13/18 12:38	08/14/18 14:40	7440-70-2	D3
Chromium	ND	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 14:34	7440-47-3	
Cobalt	**0.0010J**	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 14:34	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 14:34	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 14:34	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	08/13/18 12:38	08/14/18 14:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:34	7439-98-7	
Nickel	**0.0012J**	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:34	7440-02-0	
Selenium	**0.0041J**	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 14:34	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:34	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 14:34	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:34	7440-62-2	
Zinc	**0.0033J**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 14:34	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 10:17	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**292**	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**69.3**	mg/L	2.5	0.24	10		08/15/18 06:47	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/14/18 23:54	16984-48-8	
Sulfate	**79.5**	mg/L	10.0	0.17	10		08/15/18 06:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: GWC-2R **Lab ID: 268070009** Collected: 08/08/18 13:30 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 14:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 14:45	7440-38-2	
Barium	**0.049**	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 14:45	7440-39-3	M1
Beryllium	**0.000070J**	mg/L	0.0030	0.000050	1	08/13/18 12:38	08/14/18 14:45	7440-41-7	
Boron	**0.017J**	mg/L	0.040	0.0039	1	08/13/18 12:38	08/14/18 14:45	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 14:45	7440-43-9	
Calcium	**13.4J**	mg/L	25.0	0.69	50	08/13/18 12:38	08/14/18 14:51	7440-70-2	D3,M6
Chromium	ND	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 14:45	7440-47-3	
Cobalt	**0.014**	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 14:45	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 14:45	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 14:45	7439-92-1	
Lithium	**0.0031J**	mg/L	0.050	0.00097	1	08/13/18 12:38	08/14/18 14:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:45	7439-98-7	
Nickel	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:45	7440-02-0	
Selenium	**0.0025J**	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 14:45	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 14:45	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 14:45	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 14:45	7440-62-2	
Zinc	**0.0021J**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 14:45	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 10:19	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**166**	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.7**	mg/L	0.25	0.024	1		08/15/18 01:37	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/15/18 01:37	16984-48-8	
Sulfate	**81.1**	mg/L	10.0	0.17	10		08/15/18 07:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Sample: EB-1-8-8-18 **Lab ID: 268070010** Collected: 08/08/18 13:15 Received: 08/09/18 13:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.0013J**	mg/L	0.0030	0.00078	1	08/13/18 12:38	08/14/18 16:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/13/18 12:38	08/14/18 16:04	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	08/13/18 12:38	08/14/18 16:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	08/13/18 12:38	08/14/18 16:04	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	08/13/18 12:38	08/14/18 16:04	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	08/13/18 12:38	08/14/18 16:04	7440-43-9	
Calcium	**0.027J**	mg/L	0.50	0.014	1	08/13/18 12:38	08/14/18 16:04	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	08/13/18 12:38	08/14/18 16:04	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/13/18 12:38	08/14/18 16:04	7440-48-4	
Copper	ND	mg/L	0.025	0.0013	1	08/13/18 12:38	08/14/18 16:04	7440-50-8	
Lead	ND	mg/L	0.0050	0.00027	1	08/13/18 12:38	08/14/18 16:04	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	08/13/18 12:38	08/14/18 16:04	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 16:04	7439-98-7	
Nickel	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 16:04	7440-02-0	
Selenium	ND	mg/L	0.010	0.0014	1	08/13/18 12:38	08/14/18 16:04	7782-49-2	
Silver	ND	mg/L	0.010	0.00095	1	08/13/18 12:38	08/14/18 16:04	7440-22-4	
Thallium	ND	mg/L	0.0010	0.00014	1	08/13/18 12:38	08/14/18 16:04	7440-28-0	
Vanadium	ND	mg/L	0.010	0.0019	1	08/13/18 12:38	08/14/18 16:04	7440-62-2	
Zinc	**0.0025J**	mg/L	0.010	0.0021	1	08/13/18 12:38	08/14/18 16:04	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 16:20	08/14/18 10:22	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		08/10/18 15:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.098J**	mg/L	0.25	0.024	1		08/15/18 01:58	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/15/18 01:58	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		08/15/18 01:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

QC Batch: 11557 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 268070001, 268070002, 268070003, 268070004, 268070005, 268070006, 268070007, 268070008, 268070009, 268070010

METHOD BLANK: 52105 Matrix: Water
Associated Lab Samples: 268070001, 268070002, 268070003, 268070004, 268070005, 268070006, 268070007, 268070008, 268070009, 268070010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	08/14/18 09:20	

LABORATORY CONTROL SAMPLE: 52106

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0024	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52107 52108

Parameter	Units	268070001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0023	0.0023	91	92	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

QC Batch: 11603 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 268070001, 268070002, 268070003, 268070004, 268070005, 268070006, 268070007, 268070008, 268070009, 268070010

METHOD BLANK: 52179 Matrix: Water
Associated Lab Samples: 268070001, 268070002, 268070003, 268070004, 268070005, 268070006, 268070007, 268070008, 268070009, 268070010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	08/14/18 12:55	
Arsenic	mg/L	ND	0.0050	0.00057	08/14/18 12:55	
Barium	mg/L	ND	0.010	0.00078	08/14/18 12:55	
Beryllium	mg/L	ND	0.0030	0.000050	08/14/18 12:55	
Boron	mg/L	ND	0.040	0.0039	08/14/18 12:55	
Cadmium	mg/L	ND	0.0010	0.000093	08/14/18 12:55	
Calcium	mg/L	ND	0.50	0.014	08/14/18 12:55	
Chromium	mg/L	ND	0.010	0.0016	08/14/18 12:55	
Cobalt	mg/L	ND	0.010	0.00052	08/14/18 12:55	
Copper	mg/L	ND	0.025	0.0013	08/14/18 12:55	
Lead	mg/L	ND	0.0050	0.00027	08/14/18 12:55	
Lithium	mg/L	ND	0.050	0.00097	08/14/18 12:55	
Molybdenum	mg/L	ND	0.010	0.0019	08/14/18 12:55	
Nickel	mg/L	ND	0.010	0.00095	08/14/18 12:55	
Selenium	mg/L	ND	0.010	0.0014	08/14/18 12:55	
Silver	mg/L	ND	0.010	0.00095	08/14/18 12:55	
Thallium	mg/L	ND	0.0010	0.00014	08/14/18 12:55	
Vanadium	mg/L	ND	0.010	0.0019	08/14/18 12:55	
Zinc	mg/L	ND	0.010	0.0021	08/14/18 12:55	

LABORATORY CONTROL SAMPLE: 52180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	105	80-120	
Arsenic	mg/L	.1	0.10	101	80-120	
Barium	mg/L	.1	0.096	96	80-120	
Beryllium	mg/L	.1	0.099	99	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cadmium	mg/L	.1	0.10	100	80-120	
Calcium	mg/L	1	0.99	99	80-120	
Chromium	mg/L	.1	0.10	103	80-120	
Cobalt	mg/L	.1	0.10	103	80-120	
Copper	mg/L	.1	0.10	103	80-120	
Lead	mg/L	.1	0.10	101	80-120	
Lithium	mg/L	.1	0.099	99	80-120	
Molybdenum	mg/L	.1	0.10	104	80-120	
Nickel	mg/L	.1	0.10	103	80-120	
Selenium	mg/L	.1	0.10	101	80-120	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

LABORATORY CONTROL SAMPLE: 52180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Silver	mg/L	.1	0.095	95	80-120	
Thallium	mg/L	.1	0.10	101	80-120	
Vanadium	mg/L	.1	0.10	104	80-120	
Zinc	mg/L	.1	0.12	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52181 52182

Parameter	Units	268070009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	.1	.1	0.11	0.11	113	109	75-125	4	20	
Arsenic	mg/L	ND	.1	.1	0.11	0.11	110	106	75-125	4	20	
Barium	mg/L	0.049	.1	.1	0.18	0.18	127	135	75-125	4	20	M1
Beryllium	mg/L	0.000070J	.1	.1	0.090	0.10	90	99	75-125	10	20	
Boron	mg/L	0.017J	1	1	0.91	0.95	89	93	75-125	4	20	
Cadmium	mg/L	ND	.1	.1	0.11	0.10	107	104	75-125	3	20	
Calcium	mg/L	13.4J	1	1	15.0J	14.4J	163	99	75-125	4	20	M6
Chromium	mg/L	ND	.1	.1	0.11	0.11	114	110	75-125	3	20	
Cobalt	mg/L	0.014	.1	.1	0.13	0.12	113	109	75-125	3	20	
Copper	mg/L	ND	.1	.1	0.11	0.10	109	105	75-125	4	20	
Lead	mg/L	ND	.1	.1	0.10	0.10	103	101	75-125	3	20	
Lithium	mg/L	0.0031J	.1	.1	0.092	0.10J	89	101	75-125		20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.11	113	109	75-125	3	20	
Nickel	mg/L	ND	.1	.1	0.11	0.11	110	106	75-125	4	20	
Selenium	mg/L	0.0025J	.1	.1	0.11	0.10	105	101	75-125	4	20	
Silver	mg/L	ND	.1	.1	0.099	0.096	99	96	75-125	3	20	
Thallium	mg/L	ND	.1	.1	0.10	0.10	104	101	75-125	3	20	
Vanadium	mg/L	ND	.1	.1	0.12	0.12	120	115	75-125	4	20	
Zinc	mg/L	0.0021J	.1	.1	0.12	0.12	116	114	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

QC Batch: 11472 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 268070001, 268070002, 268070003, 268070004, 268070005, 268070006, 268070007, 268070008, 268070009, 268070010

LABORATORY CONTROL SAMPLE: 51741

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	414	104	84-108	

SAMPLE DUPLICATE: 51742

Parameter	Units	268070001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	158	159	1	10	

SAMPLE DUPLICATE: 51743

Parameter	Units	268070008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	292	289	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

QC Batch: 11673 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 268070001, 268070002, 268070003, 268070004, 268070005, 268070006, 268070007, 268070008, 268070009, 268070010

METHOD BLANK: 52426 Matrix: Water
Associated Lab Samples: 268070001, 268070002, 268070003, 268070004, 268070005, 268070006, 268070007, 268070008, 268070009, 268070010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	08/14/18 20:06	
Fluoride	mg/L	ND	0.30	0.029	08/14/18 20:06	
Sulfate	mg/L	ND	1.0	0.017	08/14/18 20:06	

LABORATORY CONTROL SAMPLE: 52427

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.8	98	90-110	
Fluoride	mg/L	10	9.9	99	90-110	
Sulfate	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52428 52429

Parameter	Units	268070001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	3.8	10	10	13.5	13.4	96	95	90-110	1	15	
Fluoride	mg/L	0.087J	10	10	10	9.8	99	97	90-110	1	15	
Sulfate	mg/L	42.1	10	10	47.4	47.4	53	53	90-110	0	15	M1

MATRIX SPIKE SAMPLE: 52430

Parameter	Units	268070002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	3.9	10	13.0	91	90-110	
Fluoride	mg/L	ND	10	9.8	98	90-110	
Sulfate	mg/L	797	10	384	-4130	90-110	E,M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Gypsum Storage
Pace Project No.: 268070

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
268070001	GWA-2	EPA 3005A	11603	EPA 6020B	11679
268070002	GWC-6R	EPA 3005A	11603	EPA 6020B	11679
268070003	Dup-1	EPA 3005A	11603	EPA 6020B	11679
268070004	GWC-3R	EPA 3005A	11603	EPA 6020B	11679
268070005	FB-1-8-7-18	EPA 3005A	11603	EPA 6020B	11679
268070006	GWC-1R	EPA 3005A	11603	EPA 6020B	11679
268070007	GWC-5R	EPA 3005A	11603	EPA 6020B	11679
268070008	GWC-4R	EPA 3005A	11603	EPA 6020B	11679
268070009	GWC-2R	EPA 3005A	11603	EPA 6020B	11679
268070010	EB-1-8-8-18	EPA 3005A	11603	EPA 6020B	11679
268070001	GWA-2	EPA 7470A	11557	EPA 7470A	11636
268070002	GWC-6R	EPA 7470A	11557	EPA 7470A	11636
268070003	Dup-1	EPA 7470A	11557	EPA 7470A	11636
268070004	GWC-3R	EPA 7470A	11557	EPA 7470A	11636
268070005	FB-1-8-7-18	EPA 7470A	11557	EPA 7470A	11636
268070006	GWC-1R	EPA 7470A	11557	EPA 7470A	11636
268070007	GWC-5R	EPA 7470A	11557	EPA 7470A	11636
268070008	GWC-4R	EPA 7470A	11557	EPA 7470A	11636
268070009	GWC-2R	EPA 7470A	11557	EPA 7470A	11636
268070010	EB-1-8-8-18	EPA 7470A	11557	EPA 7470A	11636
268070001	GWA-2	SM 2540C	11472		
268070002	GWC-6R	SM 2540C	11472		
268070003	Dup-1	SM 2540C	11472		
268070004	GWC-3R	SM 2540C	11472		
268070005	FB-1-8-7-18	SM 2540C	11472		
268070006	GWC-1R	SM 2540C	11472		
268070007	GWC-5R	SM 2540C	11472		
268070008	GWC-4R	SM 2540C	11472		
268070009	GWC-2R	SM 2540C	11472		
268070010	EB-1-8-8-18	SM 2540C	11472		
268070001	GWA-2	EPA 300.0	11673		
268070002	GWC-6R	EPA 300.0	11673		
268070003	Dup-1	EPA 300.0	11673		
268070004	GWC-3R	EPA 300.0	11673		
268070005	FB-1-8-7-18	EPA 300.0	11673		
268070006	GWC-1R	EPA 300.0	11673		
268070007	GWC-5R	EPA 300.0	11673		
268070008	GWC-4R	EPA 300.0	11673		
268070009	GWC-2R	EPA 300.0	11673		
268070010	EB-1-8-8-18	EPA 300.0	11673		

REPORT OF LABORATORY ANALYSIS

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR & Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)	Cl, F, SO4, & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER
CONTAINER TYPE:							P	P	P	
PRESERVATION:							3	7	3	
8-6-18	1310	GW		✓	GWA-2	4	1	1	2	
8-6-18	1430	GW		✓	GWC-6R	4	1	1	2	
8-6-18	—	GW		✓	DUP-1	4	1	1	2	
8-7-18	1020	GW		✓	GWC-3R	4	1	1	2	
8-7-18	0855	GW		✓	FB-1-8-7-18	4	1	1	2	
8-7-18	1325	GW		✓	GWC-1R	4	1	1	2	
8-7-18	1150	GW		✓	GWC-5R	4	1	1	2	
8-8-18	1225	GW		✓	GWC-4R	4	1	1	2	
8-8-18	1330	GW		✓	GWC-2R	4	1	1	2	
8-8-18	1315	W		✓	EB-1-8-8-18	4	1	1	2	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

WO#: 268070

268070

SAMPLED BY AND TITLE: Chris Parker (ACC)
DATE/TIME: 8-8-18 / 1400
RELINQUISHED BY:
DATE/TIME: 8-9-18 / 1320

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: Laburch
DATE/TIME: 08/09/18 1330
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA
Ice: Yes No NA
Temperature: Min: 4.1 Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #:
Entered into LIMS:
Tracking #:

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 268070

PM: BM **Due Date: 08/16/18**

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other

Tracking #:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.1 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 8/9/18 MR

			Comments:
Chain of Custody Present:	☑Yes	☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No ☐N/A	7.
Sufficient Volume:	☑Yes	☐No ☐N/A	8.
Correct Containers Used:	☑Yes	☐No ☐N/A	9.
-Pace Containers Used:	☑Yes	☐No ☐N/A	
Containers Intact:	☑Yes	☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No ☑N/A	11.
Sample Labels match COC:	☑Yes	☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: GW			
All containers needing preservation have been checked.	☑Yes	☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No ☑N/A	15.
Trip Blank Present:	☐Yes	☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution:

Person Contacted: Date/Time:

Comments/ Resolution:

Field Data Required? Y N

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

August 31, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 09, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

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CERTIFICATIONS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Lab ID	Sample ID	Matrix	Date Collected	Date Received
268071001	**GWA-2**	Water	08/06/18 13:10	08/09/18 13:30
268071002	**GWC-6R**	Water	08/06/18 14:30	08/09/18 13:30
268071003	**Dup-1**	Water	08/06/18 00:00	08/09/18 13:30
268071004	**GWC-3R**	Water	08/07/18 10:20	08/09/18 13:30
268071005	**FB-1-8-7-18**	Water	08/07/18 08:55	08/09/18 13:30
268071006	**GWC-1R**	Water	08/07/18 13:25	08/09/18 13:30
268071007	**GWC-5R**	Water	08/07/18 11:50	08/09/18 13:30
268071008	**GWC-4R**	Water	08/08/18 12:25	08/09/18 13:30
268071009	**GWC-2R**	Water	08/08/18 13:30	08/09/18 13:30
268071010	**EB-1-8-8-18**	Water	08/08/18 13:15	08/09/18 13:30

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SAMPLE ANALYTE COUNT

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
268071001	**GWA-2**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
268071002	**GWC-6R**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
268071003	**Dup-1**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
268071004	**GWC-3R**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
268071005	**FB-1-8-7-18**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
268071006	**GWC-1R**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
268071007	**GWC-5R**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
268071008	**GWC-4R**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
268071009	**GWC-2R**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
268071010	**EB-1-8-8-18**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: GWA-2 **Lab ID: 268071001** Collected: 08/06/18 13:10 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.196 ± 0.152 (0.278) C:79% T:NA**	pCi/L	08/22/18 18:00	13982-63-3	
Radium-228	EPA 9320	**-0.338 ± 0.448 (1.07) C:71% T:86%**	pCi/L	08/23/18 12:43	15262-20-1	
Total Radium	Total Radium Calculation	**0.196 ± 0.600 (1.35)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: GWC-6R **Lab ID: 268071002** Collected: 08/06/18 14:30 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.252 ± 0.131 (0.209) C:84% T:NA**	pCi/L	08/22/18 18:00	13982-63-3	
Radium-228	EPA 9320	**0.614 ± 0.553 (1.13) C:74% T:66%**	pCi/L	08/23/18 15:51	15262-20-1	
Total Radium	Total Radium Calculation	**0.866 ± 0.684 (1.34)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: Dup-1 **Lab ID: 268071003** Collected: 08/06/18 00:00 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.187 ± 0.155 (0.287) C:85% T:NA**	pCi/L	08/22/18 18:00	13982-63-3	
Radium-228	EPA 9320	**0.000 ± 0.409 (0.951) C:72% T:75%**	pCi/L	08/23/18 15:51	15262-20-1	
Total Radium	Total Radium Calculation	**0.187 ± 0.564 (1.24)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: GWC-3R **Lab ID: 268071004** Collected: 08/07/18 10:20 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.121 ± 0.170 (0.338) C:74% T:NA**	pCi/L	08/22/18 18:00	13982-63-3	
Radium-228	EPA 9320	**0.255 ± 0.384 (0.830) C:72% T:86%**	pCi/L	08/23/18 15:51	15262-20-1	
Total Radium	Total Radium Calculation	**0.376 ± 0.554 (1.17)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: FB-1-8-7-18 **Lab ID: 268071005** Collected: 08/07/18 08:55 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.377 ± 0.247 (0.386) C:88% T:NA**	pCi/L	08/23/18 08:11	13982-63-3	
Radium-228	EPA 9320	**0.691 ± 0.515 (1.02) C:68% T:80%**	pCi/L	08/23/18 15:51	15262-20-1	
Total Radium	Total Radium Calculation	**1.07 ± 0.762 (1.41)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: GWC-1R **Lab ID: 268071006** Collected: 08/07/18 13:25 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0814 ± 0.174 (0.409) C:79% T:NA**	pCi/L	08/23/18 08:11	13982-63-3	
Radium-228	EPA 9320	**0.497 ± 0.475 (0.976) C:73% T:74%**	pCi/L	08/23/18 15:51	15262-20-1	
Total Radium	Total Radium Calculation	**0.578 ± 0.649 (1.39)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: GWC-5R **Lab ID: 268071007** Collected: 08/07/18 11:50 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.124 ± 0.198 (0.441) C:89% T:NA**	pCi/L	08/23/18 08:11	13982-63-3	
Radium-228	EPA 9320	**0.386 ± 0.449 (0.946) C:73% T:71%**	pCi/L	08/23/18 15:51	15262-20-1	
Total Radium	Total Radium Calculation	**0.510 ± 0.647 (1.39)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: GWC-4R **Lab ID: 268071008** Collected: 08/08/18 12:25 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0378 ± 0.0882 (0.184) C:93% T:NA**	pCi/L	08/23/18 18:14	13982-63-3	
Radium-228	EPA 9320	**-0.189 ± 0.498 (1.21) C:74% T:82%**	pCi/L	08/27/18 19:47	15262-20-1	
Total Radium	Total Radium Calculation	**0.0378 ± 0.586 (1.39)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: GWC-2R **Lab ID: 268071009** Collected: 08/08/18 13:30 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.645 ± 0.307 (0.373) C:90% T:NA**	pCi/L	08/24/18 08:26	13982-63-3	
Radium-228	EPA 9320	**1.36 ± 0.599 (0.998) C:74% T:78%**	pCi/L	08/27/18 17:02	15262-20-1	
Total Radium	Total Radium Calculation	**2.01 ± 0.906 (1.37)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Sample: EB-1-8-8-18 **Lab ID: 268071010** Collected: 08/08/18 13:15 Received: 08/09/18 13:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0489 ± 0.132 (0.324) C:98% T:NA**	pCi/L	08/24/18 08:26	13982-63-3	
Radium-228	EPA 9320	**0.870 ± 0.500 (0.921) C:74% T:85%**	pCi/L	08/27/18 17:25	15262-20-1	
Total Radium	Total Radium Calculation	**0.919 ± 0.632 (1.25)**	pCi/L	08/29/18 11:57	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

QC Batch: 310120 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 268071008, 268071009, 268071010

METHOD BLANK: 1515356 Matrix: Water
Associated Lab Samples: 268071008, 268071009, 268071010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.667 ± 0.392 (0.705) C:76% T:80%	pCi/L	08/27/18 16:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

QC Batch: 309688 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 268071001, 268071002, 268071003, 268071004, 268071005, 268071006, 268071007

METHOD BLANK: 1513132 Matrix: Water
Associated Lab Samples: 268071001, 268071002, 268071003, 268071004, 268071005, 268071006, 268071007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.101 ± 0.101 (0.190) C:90% T:NA	pCi/L	08/22/18 16:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

QC Batch: 309687 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 268071001, 268071002, 268071003, 268071004, 268071005, 268071006, 268071007

METHOD BLANK: 1513131 Matrix: Water
Associated Lab Samples: 268071001, 268071002, 268071003, 268071004, 268071005, 268071006, 268071007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.429 ± 0.382 (0.771) C:76% T:72%	pCi/L	08/23/18 10:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

QC Batch: 310356 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 268071008, 268071009, 268071010

METHOD BLANK: 1516172 Matrix: Water
Associated Lab Samples: 268071008, 268071009, 268071010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0838 ± 0.0900 (0.171) C:99% T:NA	pCi/L	08/23/18 18:14	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Gypsum Storage
Pace Project No.: 268071

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
268071001	**GWA-2**	EPA 9315	309688		
268071002	**GWC-6R**	EPA 9315	309688		
268071003	**Dup-1**	EPA 9315	309688		
268071004	**GWC-3R**	EPA 9315	309688		
268071005	**FB-1-8-7-18**	EPA 9315	309688		
268071006	**GWC-1R**	EPA 9315	309688		
268071007	**GWC-5R**	EPA 9315	309688		
268071008	**GWC-4R**	EPA 9315	310356		
268071009	**GWC-2R**	EPA 9315	310356		
268071010	**EB-1-8-8-18**	EPA 9315	310356		
268071001	**GWA-2**	EPA 9320	309687		
268071002	**GWC-6R**	EPA 9320	309687		
268071003	**Dup-1**	EPA 9320	309687		
268071004	**GWC-3R**	EPA 9320	309687		
268071005	**FB-1-8-7-18**	EPA 9320	309687		
268071006	**GWC-1R**	EPA 9320	309687		
268071007	**GWC-5R**	EPA 9320	309687		
268071008	**GWC-4R**	EPA 9320	310120		
268071009	**GWC-2R**	EPA 9320	310120		
268071010	**EB-1-8-8-18**	EPA 9320	310120		
268071001	**GWA-2**	Total Radium Calculation	311318		
268071002	**GWC-6R**	Total Radium Calculation	311318		
268071003	**Dup-1**	Total Radium Calculation	311318		
268071004	**GWC-3R**	Total Radium Calculation	311318		
268071005	**FB-1-8-7-18**	Total Radium Calculation	311318		
268071006	**GWC-1R**	Total Radium Calculation	311318		
268071007	**GWC-5R**	Total Radium Calculation	311318		
268071008	**GWC-4R**	Total Radium Calculation	311318		
268071009	**GWC-2R**	Total Radium Calculation	311318		
268071010	**EB-1-8-8-18**	Total Radium Calculation	311318		

REPORT OF LABORATORY ANALYSIS

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage Phase 2 CCR & Semi-Annual Monitoring

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) (plus metals list at bottom of COC)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER
	CONTAINER TYPE:						P	P	P	
	PRESERVATION						3	7	3	
8-6-18	1310	GW		✓	GWA-2	4	1	1	2	
8-6-18	1430	GW		✓	GWC-6R	4	1	1	2	
8-6-18	—	GW		✓	DUP-1	4	1	1	2	
8-7-18	1020	GW		✓	GWC-3R	4	1	1	2	
8-7-18	0855	GW		✓	FB-1-8-7-18	4	1	1	2	
8-7-18	1325	GW		✓	GWC-1R	4	1	1	2	
8-7-18	1150	GW		✓	GWC-5R	4	1	1	2	
8-8-18	1225	GW		✓	GWC-4R	4	1	1	2	
8-8-18	1330	GW		✓	GWC-2R	4	1	1	2	
8-8-18	1315	W		✓	EB-1-8-8-18	4	1	1	2	

CONTAINER TYPE / PRESERVATION

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

WO#: 268071

268071

SAMPLED BY AND TITLE: Chris Packer (ACC)
DATE/TIME: 8-8-18 / 1400

RELINQUISHED BY:
DATE/TIME: 8-9-18 / 1320

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB: M Zelman
DATE/TIME: 08/09/18 1330

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA
Ice: Yes No NA
Temperature: Min: 4.1 Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID: 1

FOR LAB USE ONLY
LAB #:
Entered into LIMS:
Tracking #:

Plant Yates State constituents Sb As Ba Be Cd Cr Co Cu Pb Hg Ni Se Ag Tl V Zn

Pace Analytical

Sample Condition Upon Receipt

Client Name: GA Power

Project #

WO# : 268071

PM: BM Due Date: 09/07/18

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other

Tracking #:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83

Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.1

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 8/9/18 MR

				Comments:
Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: GW				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution:

Field Data Required? Y N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Product Name: Low-Flow System

Date: 2018-08-06 13:09:02

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED bladder pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates Gypsum	Tubing Length	52 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	47 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.986942 L
Well Total Depth	52.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	14 in
Depth to Water	39.15 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:45:29	1802.99	19.62	5.99	211.78	1.37	40.30	1.16	87.35
Last 5	12:50:29	2102.98	19.77	5.98	209.89	1.45	40.30	1.04	88.42
Last 5	12:55:29	2402.98	19.59	5.97	207.59	1.21	40.30	0.90	89.47
Last 5	13:00:30	2703.97	19.98	6.00	207.08	1.48	40.30	0.84	87.54
Last 5	13:05:35	3008.97	20.21	6.01	206.34	1.28	40.30	0.81	87.55
Variance 0			-0.18	-0.01	-2.30			-0.14	1.05
Variance 1			0.39	0.03	-0.51			-0.06	-1.93
Variance 2			0.24	0.00	-0.74			-0.03	0.01

Notes

Collected at 13:10. Sunny 90s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-07 13:19:41

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peripump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	36 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWC-1R	Final Pumping Rate	1140 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	36.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	6 in
Depth to Water	23.68 ft	Total Volume Pumped	5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:56:05	600.03	21.74	4.89	351.12	3.41	24.30	6.78	194.25
Last 5	13:01:05	900.02	20.70	4.97	344.05	4.34	24.40	6.86	185.43
Last 5	13:06:05	1200.02	20.42	5.13	350.76	4.12	24.40	6.89	176.50
Last 5	13:11:05	1500.01	20.30	5.12	358.46	4.02	24.40	6.89	174.61
Last 5	13:16:05	1800.01	20.49	5.14	365.23	3.72	24.40	6.82	172.04
Variance 0			-0.28	0.16	6.70			0.03	-8.92
Variance 1			-0.11	-0.01	7.70			0.01	-1.89
Variance 2			0.18	0.02	6.77			-0.07	-2.58

Notes

Collected at 13:25. Cloudy 90s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-08 13:31:42

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peripump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	43 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	GWC-2R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.2819272 L
Well Total Depth	43.80 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2 in
Depth to Water	29.15 ft	Total Volume Pumped	5.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:01:49	300.04	21.46	4.87	240.04	4.08	29.30	3.62	159.74
Last 5	13:06:49	600.03	21.01	5.03	241.37	3.03	29.30	3.48	150.18
Last 5	13:16:49	1200.02	20.79	5.08	245.75	2.78	29.30	3.49	148.10
Last 5	13:21:49	1500.01	20.92	5.15	245.52	3.01	29.30	3.55	129.90
Last 5	13:26:49	1800.01	20.84	5.15	244.10	2.86	29.30	3.49	119.41
Variance 0			-0.22	0.05	4.38			0.01	-2.08
Variance 1			0.12	0.07	-0.23			0.05	-18.20
Variance 2			-0.08	0.01	-1.43			-0.06	-10.50

Notes

Collected at 13:30. Sunny 90s. EB 1 here at 13:15.

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-07 10:21:05

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED bladder pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates Gypsum	Tubing Length	38 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	33 ft

Well Information:		Pumping Information:	
Well ID	GWC-3R	Final Pumping Rate	280 mL/min
Well diameter	2 in	Total System Volume	0.8518038 L
Well Total Depth	38.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	10 in
Depth to Water	29.36 ft	Total Volume Pumped	17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:52:51	900.02	18.36	4.99	145.62	2.78	30.20	6.92	149.93
Last 5	09:57:51	1200.00	18.44	4.96	144.74	2.68	30.20	6.89	154.15
Last 5	10:02:51	1500.00	18.40	4.98	143.63	3.01	30.20	6.90	153.53
Last 5	10:07:51	1800.05	18.34	4.97	143.27	2.65	30.20	6.91	155.42
Last 5	10:12:51	2100.00	18.61	4.95	142.00	2.69	30.20	6.87	158.97
Variance 0			-0.03	0.02	-1.11			0.01	-0.62
Variance 1			-0.06	-0.01	-0.36			0.01	1.89
Variance 2			0.27	-0.02	-1.26			-0.03	3.55

Notes

Collected at 10:20. Sunny 80s. FB 1 here at 08:55

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-08 12:22:08

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peripump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.17 in
Site Name	Plant Yates Gypsum	Tubing Length	31 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	26 ft

Well Information:		Pumping Information:	
Well ID	GWC-4R	Final Pumping Rate	190 mL/min
Well diameter	2 in	Total System Volume	0.2283661 L
Well Total Depth	31.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	16.80 ft	Total Volume Pumped	21 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:00:02	4802.94	21.86	5.32	602.06	2.01	17.10	2.27	134.90
Last 5	12:05:03	5103.93	21.45	5.29	598.01	2.13	17.10	2.50	136.36
Last 5	12:10:06	5406.92	21.82	5.30	540.51	2.40	17.10	2.69	135.93
Last 5	12:15:06	5706.90	21.73	5.31	554.36	1.73	17.10	2.62	136.33
Last 5	12:20:07	6007.91	21.36	5.33	540.56	1.65	17.10	2.79	138.84
Variance 0			0.37	0.01	-57.50			0.19	-0.42
Variance 1			-0.09	0.01	13.85			-0.06	0.39
Variance 2			-0.37	0.01	-13.80			0.16	2.51

Notes

Collected at 12:25. Sunny 90s

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-07 11:51:25

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED bladder pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates Gypsum	Tubing Length	42 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	37.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-5R	Final Pumping Rate	110 mL/min
Well diameter	2 in	Total System Volume	0.8904147 L
Well Total Depth	42.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	10 in
Depth to Water	29.52 ft	Total Volume Pumped	7.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:29:16	2399.99	21.46	4.98	1493.56	6.61	30.40	7.54	181.37
Last 5	11:34:16	2699.98	21.42	5.01	1456.48	5.89	30.40	7.50	180.66
Last 5	11:39:16	2999.98	21.64	5.04	1431.03	5.11	30.40	7.46	181.82
Last 5	11:44:16	3299.97	21.73	5.04	1413.22	4.78	30.40	7.63	181.57
Last 5	11:49:16	3599.96	21.69	5.06	1391.64	4.65	30.40	7.58	183.56
Variance 0			0.22	0.04	-25.45			-0.04	1.17
Variance 1			0.09	-0.01	-17.81			0.17	-0.25
Variance 2			-0.04	0.03	-21.58			-0.04	1.98

Notes

Collected at 11:50. Sunny 90s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-06 14:27:24

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates Gypsum	Tubing Length	51 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	46 ft

Well Information:		Pumping Information:	
Well ID	GWC-6R	Final Pumping Rate	180 mL/min
Well diameter	2 in	Total System Volume	0.9772893 L
Well Total Depth	51.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	7 in
Depth to Water	37.61 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:03:24	600.02	18.05	5.76	1423.17	1.26	38.10	4.90	111.80
Last 5	14:08:24	900.01	17.84	5.81	1424.15	1.11	38.10	4.77	108.02
Last 5	14:13:24	1200.01	17.62	5.80	1430.12	1.04	38.20	4.78	107.84
Last 5	14:18:24	1500.00	17.63	5.78	1435.51	0.98	38.20	4.84	107.87
Last 5	14:23:24	1800.00	17.73	5.84	1444.74	1.03	38.20	4.77	104.51
Variance 0			-0.22	-0.02	5.97			0.01	-0.18
Variance 1			0.01	-0.02	5.39			0.05	0.03
Variance 2			0.09	0.06	9.24			-0.06	-3.36

Notes

Collected at 14:30. Sunny 90s. DUP 1 here

Grab Samples

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

June 21, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on June 14, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2619701001	**GWA-2**	Water	06/12/19 11:50	06/14/19 09:25
2619701002	**GWC-1R**	Water	06/13/19 14:55	06/14/19 09:25
2619701003	**GWC-2R**	Water	06/12/19 15:15	06/14/19 09:25
2619701004	**GWC-3R**	Water	06/13/19 10:25	06/14/19 09:25
2619701005	**GWC-4R**	Water	06/12/19 14:10	06/14/19 09:25
2619701006	**GWC-5R**	Water	06/13/19 12:55	06/14/19 09:25
2619701007	**GWC-6R**	Water	06/13/19 13:55	06/14/19 09:25
2619701008	**EB-1-6-12-19**	Water	06/12/19 13:10	06/14/19 09:25
2619701009	**Dup-1**	Water	06/13/19 00:00	06/14/19 09:25
2619701010	**FB-1-6-13-19**	Water	06/13/19 11:10	06/14/19 09:25

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SAMPLE ANALYTE COUNT

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2619701001	**GWA-2**	EPA 6020B	CSW	17
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3
2619701002	**GWC-1R**	EPA 6020B	CSW	17
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3
2619701003	**GWC-2R**	EPA 6020B	CSW	17
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3
2619701004	**GWC-3R**	EPA 6020B	CSW	17
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3
2619701005	**GWC-4R**	EPA 6020B	CSW	17
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3
2619701006	**GWC-5R**	EPA 6020B	CSW	17
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3
2619701007	**GWC-6R**	EPA 6020B	CSW	17
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3
2619701008	**EB-1-6-12-19**	EPA 6020B	CSW	17
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3
2619701009	**Dup-1**	EPA 6020B	CSW	17
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3
2619701010	**FB-1-6-13-19**	EPA 6020B	CSW	17

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SAMPLE ANALYTE COUNT

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	DRB	1
		SM 2540C	M1O	1
		EPA 300.0	RLC	3

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ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: GWA-2 **Lab ID: 2619701001** Collected: 06/12/19 11:50 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 15:43	7440-36-0	
Arsenic	**0.00038J**	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 15:43	7440-38-2	
Barium	**0.063**	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 15:43	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 15:43	7440-41-7	
Boron	ND	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 15:43	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 15:43	7440-43-9	
Calcium	**18.9**	mg/L	5.0	0.55	50	06/18/19 13:30	06/19/19 15:49	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 15:43	7440-47-3	
Cobalt	**0.0030J**	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 15:43	7440-48-4	
Copper	**0.00034J**	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 15:43	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 15:43	7439-92-1	
Nickel	**0.0038J**	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 15:43	7440-02-0	
Selenium	ND	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 15:43	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 15:43	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 15:43	7440-28-0	
Vanadium	**0.0032J**	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 15:43	7440-62-2	B
Zinc	ND	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 15:43	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:02	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**226**	mg/L	10.0	10.0	1		06/18/19 15:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.7**	mg/L	0.25	0.024	1		06/18/19 22:40	16887-00-6	
Fluoride	**0.12J**	mg/L	0.30	0.029	1		06/18/19 22:40	16984-48-8	
Sulfate	**83.4**	mg/L	5.0	0.085	5		06/19/19 09:11	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: GWC-1R **Lab ID: 2619701002** Collected: 06/13/19 14:55 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 15:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 15:55	7440-38-2	
Barium	**0.033**	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 15:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 15:55	7440-41-7	
Boron	**0.057**	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 15:55	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 15:55	7440-43-9	
Calcium	**33.8**	mg/L	5.0	0.55	50	06/18/19 13:30	06/19/19 16:00	7440-70-2	
Chromium	**0.00090J**	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 15:55	7440-47-3	
Cobalt	**0.00033J**	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 15:55	7440-48-4	
Copper	ND	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 15:55	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 15:55	7439-92-1	
Nickel	**0.00072J**	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 15:55	7440-02-0	
Selenium	ND	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 15:55	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 15:55	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 15:55	7440-28-0	
Vanadium	ND	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 15:55	7440-62-2	
Zinc	ND	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 15:55	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:17	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**301**	mg/L	10.0	10.0	1		06/18/19 15:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**16.4**	mg/L	0.25	0.024	1		06/18/19 23:03	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		06/18/19 23:03	16984-48-8	
Sulfate	**163**	mg/L	10.0	0.17	10		06/19/19 09:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: GWC-2R **Lab ID: 2619701003** Collected: 06/12/19 15:15 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 16:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 16:06	7440-38-2	
Barium	**0.046**	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 16:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 16:06	7440-41-7	
Boron	**0.013J**	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 16:06	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 16:06	7440-43-9	
Calcium	**26.6**	mg/L	5.0	0.55	50	06/18/19 13:30	06/19/19 16:12	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 16:06	7440-47-3	
Cobalt	**0.013**	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 16:06	7440-48-4	
Copper	ND	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 16:06	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 16:06	7439-92-1	
Nickel	**0.00043J**	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 16:06	7440-02-0	
Selenium	**0.0034J**	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 16:06	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 16:06	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 16:06	7440-28-0	
Vanadium	**0.00079J**	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 16:06	7440-62-2	B
Zinc	**0.0019J**	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 16:06	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:19	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**391**	mg/L	10.0	10.0	1		06/18/19 15:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**9.1**	mg/L	0.25	0.024	1		06/18/19 23:26	16887-00-6	
Fluoride	**0.58**	mg/L	0.30	0.029	1		06/18/19 23:26	16984-48-8	
Sulfate	**180**	mg/L	10.0	0.17	10		06/19/19 09:55	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: GWC-3R **Lab ID: 2619701004** Collected: 06/13/19 10:25 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 16:17	7440-36-0	
Arsenic	**0.0016J**	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 16:17	7440-38-2	
Barium	**0.021**	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 16:17	7440-39-3	
Beryllium	**0.00051J**	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 16:17	7440-41-7	
Boron	ND	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 16:17	7440-42-8	
Cadmium	**0.00021J**	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 16:17	7440-43-9	
Calcium	**15.7**	mg/L	5.0	0.55	50	06/18/19 13:30	06/19/19 16:23	7440-70-2	M6
Chromium	**0.00073J**	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 16:17	7440-47-3	
Cobalt	**0.010**	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 16:17	7440-48-4	
Copper	ND	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 16:17	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 16:17	7439-92-1	
Nickel	ND	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 16:17	7440-02-0	
Selenium	**0.0089J**	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 16:17	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 16:17	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 16:17	7440-28-0	
Vanadium	**0.0021J**	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 16:17	7440-62-2	B
Zinc	**0.0069J**	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 16:17	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:21	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**136**	mg/L	10.0	10.0	1		06/18/19 15:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**5.0**	mg/L	0.25	0.024	1		06/18/19 23:49	16887-00-6	
Fluoride	**0.58**	mg/L	0.30	0.029	1		06/18/19 23:49	16984-48-8	
Sulfate	**77.1**	mg/L	2.0	0.034	2		06/19/19 10:17	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: GWC-4R **Lab ID: 2619701005** Collected: 06/12/19 14:10 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00028J**	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 17:09	7440-36-0	
Arsenic	**0.00037J**	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 17:09	7440-38-2	
Barium	**0.017**	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 17:09	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 17:09	7440-41-7	
Boron	**1.5**	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 17:09	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 17:09	7440-43-9	
Calcium	**24.2**	mg/L	5.0	0.55	50	06/18/19 13:30	06/19/19 17:15	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 17:09	7440-47-3	
Cobalt	**0.00078J**	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 17:09	7440-48-4	
Copper	**0.00025J**	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 17:09	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 17:09	7439-92-1	
Nickel	**0.00082J**	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 17:09	7440-02-0	
Selenium	**0.0029J**	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 17:09	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 17:09	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 17:09	7440-28-0	
Vanadium	**0.00088J**	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 17:09	7440-62-2	B
Zinc	ND	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 17:09	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:24	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**298**	mg/L	10.0	10.0	1		06/18/19 15:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**69.5**	mg/L	2.5	0.24	10		06/19/19 10:39	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		06/19/19 00:12	16984-48-8	
Sulfate	**92.8**	mg/L	10.0	0.17	10		06/19/19 10:39	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: GWC-5R **Lab ID: 2619701006** Collected: 06/13/19 12:55 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 17:21	7440-36-0	
Arsenic	**0.0012J**	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 17:21	7440-38-2	
Barium	**0.014**	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 17:21	7440-39-3	
Beryllium	**0.0015J**	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 17:21	7440-41-7	
Boron	**0.030J**	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 17:21	7440-42-8	
Cadmium	**0.00073J**	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 17:21	7440-43-9	
Calcium	**127**	mg/L	5.0	0.55	50	06/18/19 13:30	06/19/19 17:26	7440-70-2	
Chromium	**0.0018J**	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 17:21	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 17:21	7440-48-4	
Copper	**0.00049J**	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 17:21	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 17:21	7439-92-1	
Nickel	**0.0019J**	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 17:21	7440-02-0	
Selenium	**0.027**	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 17:21	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 17:21	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 17:21	7440-28-0	
Vanadium	ND	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 17:21	7440-62-2	
Zinc	**0.015**	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 17:21	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1410**	mg/L	10.0	10.0	1		06/18/19 15:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**5.5**	mg/L	0.25	0.024	1		06/19/19 00:35	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		06/19/19 00:35	16984-48-8	
Sulfate	**976**	mg/L	50.0	0.85	50		06/19/19 11:01	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: GWC-6R **Lab ID: 2619701007** Collected: 06/13/19 13:55 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 17:54	7440-36-0	
Arsenic	**0.00068J**	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 17:54	7440-38-2	
Barium	**0.062**	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 17:54	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 17:54	7440-41-7	
Boron	ND	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 17:54	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 17:54	7440-43-9	
Calcium	**146**	mg/L	5.0	0.55	50	06/18/19 13:30	06/19/19 18:00	7440-70-2	
Chromium	**0.00089J**	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 17:54	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 17:54	7440-48-4	
Copper	**0.0011J**	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 17:54	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 17:54	7439-92-1	
Nickel	**0.0037J**	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 17:54	7440-02-0	
Selenium	**0.0048J**	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 17:54	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 17:54	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 17:54	7440-28-0	
Vanadium	ND	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 17:54	7440-62-2	
Zinc	ND	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 17:54	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:28	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1310**	mg/L	10.0	10.0	1		06/18/19 15:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**6.2**	mg/L	0.25	0.024	1		06/19/19 00:58	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		06/19/19 00:58	16984-48-8	
Sulfate	**918**	mg/L	50.0	0.85	50		06/19/19 11:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: EB-1-6-12-19 **Lab ID: 2619701008** Collected: 06/12/19 13:10 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 18:06	7440-36-0	
Arsenic	**0.00057J**	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 18:06	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 18:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 18:06	7440-41-7	
Boron	ND	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 18:06	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 18:06	7440-43-9	
Calcium	**0.017J**	mg/L	0.10	0.011	1	06/18/19 13:30	06/19/19 18:06	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 18:06	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 18:06	7440-48-4	
Copper	ND	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 18:06	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 18:06	7439-92-1	
Nickel	ND	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 18:06	7440-02-0	
Selenium	ND	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 18:06	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 18:06	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 18:06	7440-28-0	
Vanadium	ND	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 18:06	7440-62-2	
Zinc	ND	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 18:06	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		06/18/19 15:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.087J**	mg/L	0.25	0.024	1		06/19/19 02:53	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		06/19/19 02:53	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		06/19/19 02:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: Dup-1 **Lab ID: 2619701009** Collected: 06/13/19 00:00 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 18:11	7440-36-0	
Arsenic	**0.00044J**	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 18:11	7440-38-2	
Barium	**0.033**	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 18:11	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 18:11	7440-41-7	
Boron	**0.058**	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 18:11	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 18:11	7440-43-9	
Calcium	**35.1**	mg/L	5.0	0.55	50	06/18/19 13:30	06/19/19 18:17	7440-70-2	
Chromium	**0.0013J**	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 18:11	7440-47-3	
Cobalt	**0.00031J**	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 18:11	7440-48-4	
Copper	ND	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 18:11	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 18:11	7439-92-1	
Nickel	**0.00082J**	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 18:11	7440-02-0	
Selenium	ND	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 18:11	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 18:11	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 18:11	7440-28-0	
Vanadium	ND	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 18:11	7440-62-2	
Zinc	**0.0017J**	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 18:11	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:33	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**310**	mg/L	10.0	10.0	1		06/18/19 15:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**16.5**	mg/L	0.25	0.024	1		06/19/19 03:15	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		06/19/19 03:15	16984-48-8	
Sulfate	**168**	mg/L	25.0	0.42	25		06/19/19 13:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Sample: FB-1-6-13-19 **Lab ID: 2619701010** Collected: 06/13/19 11:10 Received: 06/14/19 09:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	06/18/19 13:30	06/19/19 18:28	7440-36-0	
Arsenic	**0.00064J**	mg/L	0.0050	0.00035	1	06/18/19 13:30	06/19/19 18:28	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	06/18/19 13:30	06/19/19 18:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	06/18/19 13:30	06/19/19 18:28	7440-41-7	
Boron	ND	mg/L	0.040	0.0049	1	06/18/19 13:30	06/19/19 18:28	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.00011	1	06/18/19 13:30	06/19/19 18:28	7440-43-9	
Calcium	**0.015J**	mg/L	0.10	0.011	1	06/18/19 13:30	06/19/19 18:28	7440-70-2	
Chromium	**0.017**	mg/L	0.010	0.00039	1	06/18/19 13:30	06/19/19 18:28	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00030	1	06/18/19 13:30	06/19/19 18:28	7440-48-4	
Copper	**0.0011J**	mg/L	0.025	0.00019	1	06/18/19 13:30	06/19/19 18:28	7440-50-8	
Lead	ND	mg/L	0.0050	0.000046	1	06/18/19 13:30	06/19/19 18:28	7439-92-1	
Nickel	**0.0055J**	mg/L	0.010	0.00031	1	06/18/19 13:30	06/19/19 18:28	7440-02-0	
Selenium	ND	mg/L	0.010	0.0013	1	06/18/19 13:30	06/19/19 18:28	7782-49-2	
Silver	ND	mg/L	0.010	0.00028	1	06/18/19 13:30	06/19/19 18:28	7440-22-4	
Thallium	ND	mg/L	0.0010	0.000052	1	06/18/19 13:30	06/19/19 18:28	7440-28-0	
Vanadium	**0.0017J**	mg/L	0.010	0.00071	1	06/18/19 13:30	06/19/19 18:28	7440-62-2	B
Zinc	**0.012**	mg/L	0.010	0.0015	1	06/18/19 13:30	06/19/19 18:28	7440-66-6	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	06/18/19 08:32	06/18/19 18:36	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		06/18/19 15:03		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.29**	mg/L	0.25	0.024	1		06/19/19 04:00	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		06/19/19 04:00	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		06/19/19 04:00	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

QC Batch: 30399 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2619701001, 2619701002, 2619701003, 2619701004, 2619701005, 2619701006, 2619701007, 2619701008, 2619701009, 2619701010

METHOD BLANK: 136851 Matrix: Water
Associated Lab Samples: 2619701001, 2619701002, 2619701003, 2619701004, 2619701005, 2619701006, 2619701007, 2619701008, 2619701009, 2619701010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	06/18/19 17:58	

LABORATORY CONTROL SAMPLE: 136852

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 136853 136854

Parameter	Units	2619701001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0023	0.0023	90	90	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

QC Batch: 30472 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2619701001, 2619701002, 2619701003, 2619701004, 2619701005, 2619701006, 2619701007, 2619701008, 2619701009, 2619701010

METHOD BLANK: 137086 Matrix: Water
Associated Lab Samples: 2619701001, 2619701002, 2619701003, 2619701004, 2619701005, 2619701006, 2619701007, 2619701008, 2619701009, 2619701010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	06/19/19 15:30	
Arsenic	mg/L	ND	0.0050	0.00035	06/19/19 15:30	
Barium	mg/L	ND	0.010	0.00049	06/19/19 15:30	
Beryllium	mg/L	ND	0.0030	0.000074	06/19/19 15:30	
Boron	mg/L	ND	0.040	0.0049	06/19/19 15:30	
Cadmium	mg/L	ND	0.0010	0.00011	06/19/19 15:30	
Calcium	mg/L	ND	0.10	0.011	06/19/19 15:30	
Chromium	mg/L	ND	0.010	0.00039	06/19/19 15:30	
Cobalt	mg/L	ND	0.010	0.00030	06/19/19 15:30	
Copper	mg/L	ND	0.025	0.00019	06/19/19 15:30	
Lead	mg/L	ND	0.0050	0.000046	06/19/19 15:30	
Nickel	mg/L	ND	0.010	0.00031	06/19/19 15:30	
Selenium	mg/L	ND	0.010	0.0013	06/19/19 15:30	
Silver	mg/L	ND	0.010	0.00028	06/19/19 15:30	
Thallium	mg/L	ND	0.0010	0.000052	06/19/19 15:30	
Vanadium	mg/L	0.0033J	0.010	0.00071	06/19/19 15:30	
Zinc	mg/L	ND	0.010	0.0015	06/19/19 15:30	

LABORATORY CONTROL SAMPLE: 137087

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.97	97	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Calcium	mg/L	1	0.96	96	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Copper	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Nickel	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.094	94	80-120	
Silver	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	
Vanadium	mg/L	0.1	0.10	102	80-120	
Zinc	mg/L	0.1	0.097	97	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 137088 137089

Parameter	Units	2619701004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	
Arsenic	mg/L	0.0016J	0.1	0.1	0.097	0.10	96	100	75-125	4	20	
Barium	mg/L	0.021	0.1	0.1	0.12	0.12	97	96	75-125	1	20	
Beryllium	mg/L	0.00051J	0.1	0.1	0.092	0.092	92	91	75-125	1	20	
Boron	mg/L	ND	1	1	0.95	0.93	94	93	75-125	1	20	
Cadmium	mg/L	0.00021J	0.1	0.1	0.098	0.099	98	99	75-125	1	20	
Calcium	mg/L	15.7	1	1	16.0	15.3	28	-38	75-125	4	20	M6
Chromium	mg/L	0.00073J	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Cobalt	mg/L	0.010	0.1	0.1	0.11	0.11	97	99	75-125	1	20	
Copper	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.093	0.094	93	94	75-125	2	20	
Nickel	mg/L	ND	0.1	0.1	0.098	0.098	97	98	75-125	0	20	
Selenium	mg/L	0.0089J	0.1	0.1	0.10	0.10	93	96	75-125	3	20	
Silver	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.091	0.092	91	92	75-125	1	20	
Vanadium	mg/L	0.0021J	0.1	0.1	0.10	0.10	102	100	75-125	2	20	
Zinc	mg/L	0.0069J	0.1	0.1	0.10	0.10	97	97	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

QC Batch: 30469 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2619701001, 2619701002, 2619701003, 2619701004, 2619701005, 2619701006, 2619701007, 2619701008, 2619701009, 2619701010

LABORATORY CONTROL SAMPLE: 137074

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	402	100	84-108	

SAMPLE DUPLICATE: 137075

Parameter	Units	2619701001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	226	229	1	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

QC Batch: 30462 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2619701001, 2619701002, 2619701003, 2619701004, 2619701005, 2619701006, 2619701007, 2619701008, 2619701009, 2619701010

METHOD BLANK: 137042 Matrix: Water
Associated Lab Samples: 2619701001, 2619701002, 2619701003, 2619701004, 2619701005, 2619701006, 2619701007, 2619701008, 2619701009, 2619701010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.077J	0.25	0.024	06/18/19 20:45	
Fluoride	mg/L	ND	0.30	0.029	06/18/19 20:45	
Sulfate	mg/L	ND	1.0	0.017	06/18/19 20:45	

LABORATORY CONTROL SAMPLE: 137043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	9.9	99	90-110	
Sulfate	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 137044 137045

Parameter	Units	2619616001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	204	200	200	415	416	106	106	90-110	0	15	
Fluoride	mg/L	11.5	200	200	217	219	103	104	90-110	1	15	
Sulfate	mg/L	2630	200	200	2570	2560	-33	-35	90-110	0	15	E,M6

MATRIX SPIKE SAMPLE: 137046

Parameter	Units	2619701001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.7	10	15.1	104	90-110	
Fluoride	mg/L	0.12J	10	10.3	102	90-110	
Sulfate	mg/L	83.4	10	81.7	-17	90-110	E,M1

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
E	Analyte concentration exceeded the calibration range. The reported result is estimated.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Gypsum Storage
Pace Project No.: 2619701

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2619701001	**GWA-2**	EPA 3005A	30472	EPA 6020B	30493
2619701002	**GWC-1R**	EPA 3005A	30472	EPA 6020B	30493
2619701003	**GWC-2R**	EPA 3005A	30472	EPA 6020B	30493
2619701004	**GWC-3R**	EPA 3005A	30472	EPA 6020B	30493
2619701005	**GWC-4R**	EPA 3005A	30472	EPA 6020B	30493
2619701006	**GWC-5R**	EPA 3005A	30472	EPA 6020B	30493
2619701007	**GWC-6R**	EPA 3005A	30472	EPA 6020B	30493
2619701008	**EB-1-6-12-19**	EPA 3005A	30472	EPA 6020B	30493
2619701009	**Dup-1**	EPA 3005A	30472	EPA 6020B	30493
2619701010	**FB-1-6-13-19**	EPA 3005A	30472	EPA 6020B	30493
2619701001	**GWA-2**	EPA 7470A	30399	EPA 7470A	30457
2619701002	**GWC-1R**	EPA 7470A	30399	EPA 7470A	30457
2619701003	**GWC-2R**	EPA 7470A	30399	EPA 7470A	30457
2619701004	**GWC-3R**	EPA 7470A	30399	EPA 7470A	30457
2619701005	**GWC-4R**	EPA 7470A	30399	EPA 7470A	30457
2619701006	**GWC-5R**	EPA 7470A	30399	EPA 7470A	30457
2619701007	**GWC-6R**	EPA 7470A	30399	EPA 7470A	30457
2619701008	**EB-1-6-12-19**	EPA 7470A	30399	EPA 7470A	30457
2619701009	**Dup-1**	EPA 7470A	30399	EPA 7470A	30457
2619701010	**FB-1-6-13-19**	EPA 7470A	30399	EPA 7470A	30457
2619701001	**GWA-2**	SM 2540C	30469		
2619701002	**GWC-1R**	SM 2540C	30469		
2619701003	**GWC-2R**	SM 2540C	30469		
2619701004	**GWC-3R**	SM 2540C	30469		
2619701005	**GWC-4R**	SM 2540C	30469		
2619701006	**GWC-5R**	SM 2540C	30469		
2619701007	**GWC-6R**	SM 2540C	30469		
2619701008	**EB-1-6-12-19**	SM 2540C	30469		
2619701009	**Dup-1**	SM 2540C	30469		
2619701010	**FB-1-6-13-19**	SM 2540C	30469		
2619701001	**GWA-2**	EPA 300.0	30462		
2619701002	**GWC-1R**	EPA 300.0	30462		
2619701003	**GWC-2R**	EPA 300.0	30462		
2619701004	**GWC-3R**	EPA 300.0	30462		
2619701005	**GWC-4R**	EPA 300.0	30462		
2619701006	**GWC-5R**	EPA 300.0	30462		
2619701007	**GWC-6R**	EPA 300.0	30462		
2619701008	**EB-1-6-12-19**	EPA 300.0	30462		
2619701009	**Dup-1**	EPA 300.0	30462		
2619701010	**FB-1-6-13-19**	EPA 300.0	30462		

REPORT OF LABORATORY ANALYSIS

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham

REQUESTED COMPLETION DATE:

PO #:

PROJECT NAME/STATE: Plant Yates Gypsum Storage

PROJECT #: Yates Gypsum Storage

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	CONTAINER TYPE	PRESERVATION	# of CONTAINERS	Metals App. III (EPA 6020/7470) Boron, Calcium	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	State Metals list (see below)	LAB ID NUMBER
						P	3			7	3	
6-12-19	1150	GW		✓	GWA-2			2	✓	✓	✓	
6-13-19	1455	GW		✓	GWC-1R			2	✓	✓	✓	
6-12-19	1515	GW		✓	GWC-2R			2	✓	✓	✓	
6-13-19	1025	GW		✓	GWC-3R			2	✓	✓	✓	
6-12-19	1410	GW		✓	GWC-4R			2	✓	✓	✓	
6-13-19	1255	GW		✓	GWC-5R			2	✓	✓	✓	
6-13-19	1355	GW		✓	GWC-6R			2	✓	✓	✓	
6-12-19	1310	W		✓	EB-1-6-12-19			2	✓	✓	✓	
6-13-19	—	GW		✓	DUP-1			2	✓	✓	✓	
6-13-19	1110	W		✓	FB-1-6-13-19			2	✓	✓	✓	

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

WO#: 2619701

2619701

SAMPLED BY AND TITLE: [signature] / ACC

DATE/TIME: See above

RELINQUISHED BY: [signature]

DATE/TIME: 6-14-19 0925

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY/LAB: [signature]

DATE/TIME: 06/14/19 0925

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH Checked: Yes No NA

Ice: Yes No NA

Temperature: Min: 1.7 Max:

Custody Seal: Intact Broken Not Present

# of Coolers

Cooler ID:

FOR LAB USE ONLY

LAB #:

Entered into LIMS:

Tracking #:

Plant Yates State constituents: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Tl, V, Zn

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

WO#: 2619701

PM: BM Due Date: 06/21/19

CLIENT: GAPower-CCR

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other

Tracking #:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: ~~Wet~~ Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 1.7 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 6/14/19 MK

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Product Name: Low-Flow System

Date: 2019-06-12 11:52:03

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED bladder pump
Company Name	ACC	Tubing Type	poly
Project Name	Plant Yates - Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	52.1 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	573204		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	47.1 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	130 mL/min
Well diameter	2 in	Total System Volume	0.9879073 L
Well Total Depth	52.13 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	17 in
Depth to Water	36.08 ft	Total Volume Pumped	5.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:22:47	300.03	18.54	6.37	317.55	3.47	37.00	0.74	71.16
Last 5	11:27:47	600.00	18.46	6.37	319.47	1.86	37.20	0.57	70.20
Last 5	11:32:47	900.00	18.46	6.34	314.27	0.95	37.40	0.59	70.72
Last 5	11:37:47	1199.99	18.44	6.31	311.18	0.59	37.50	0.61	68.41
Last 5	11:42:47	1499.98	18.77	6.30	309.97	0.56	37.50	0.62	65.74
Variance 0			-0.00	-0.03	-5.20			0.02	0.51
Variance 1			-0.02	-0.03	-3.09			0.03	-2.31
Variance 2			0.33	-0.01	-1.21			0.01	-2.67

Notes

Sampled at 11:50. Cloudy 70s

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-13 14:52:47

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Peri Pump
Company Name	ACC	Tubing Type	poly
Project Name	Plant Yates- Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	36 ft
Latitude	33° 27' 39.74"		
Longitude	-84° -54' -27.69"		
Sonde SN	573204		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWC-1R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.4374984 L
Well Total Depth	36.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9 in
Depth to Water	21.22 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:29:39	600.02	21.71	5.58	415.60	1.41	21.90	6.07	230.37
Last 5	14:34:39	900.01	21.49	5.58	417.23	1.30	22.00	6.13	244.00
Last 5	14:39:39	1200.01	20.87	5.57	434.65	1.13	22.00	6.24	230.93
Last 5	14:44:39	1500.01	20.16	5.56	439.32	0.95	22.00	6.26	224.74
Last 5	14:49:39	1800.00	20.04	5.55	447.65	1.08	22.00	6.33	209.62
Variance 0			-0.62	-0.01	17.42			0.12	-13.07
Variance 1			-0.71	-0.01	4.67			0.02	-6.19
Variance 2			-0.11	-0.01	8.33			0.07	-15.12

Notes

Sampled at 14:55. Sunny 80s. DUP1 here

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-12 15:15:38

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED Bladder Pump
Company Name	ACC	Tubing Type	poly
Project Name	Plant Yates- Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	43.8 ft
Latitude	33° 28' 1.41"		
Longitude	-84° -54' -2.43"		
Sonde SN	573204		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	38.8 ft

Well Information:		Pumping Information:	
Well ID	GWC-2R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.9077896 L
Well Total Depth	43.8 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	27.38 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:49:42	600.02	19.44	5.43	421.36	1.72	27.50	3.95	141.60
Last 5	14:54:42	900.01	19.17	5.40	433.69	1.12	27.50	4.02	137.21
Last 5	14:59:42	1200.00	19.13	5.40	433.02	1.65	27.60	4.03	127.68
Last 5	15:04:42	1500.00	19.13	5.41	427.19	2.20	27.50	3.91	82.87
Last 5	15:09:42	1799.99	19.09	5.38	443.02	1.39	27.50	4.03	106.33
Variance 0			-0.04	-0.00	-0.67			0.01	-9.53
Variance 1			0.00	0.01	-5.83			-0.12	-44.81
Variance 2			-0.05	-0.03	15.82			0.12	23.46

Notes

Sampled at 15:15. Sunny 70s

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-13 10:27:43

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED Bladder Pump
Company Name	ACC	Tubing Type	poly
Project Name	Plant Yates- Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	38 ft
Latitude	33° 27' 39.74"		
Longitude	-84° -54' -27.69"		
Sonde SN	573204		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	35.3 ft

Well Information:		Pumping Information:	
Well ID	GWC-3R	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.8518038 L
Well Total Depth	38.34 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	27.23 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:04:16	1200.00	19.62	5.02	245.00	9.85	27.80	6.96	211.66
Last 5	10:09:16	1500.00	19.71	5.05	243.28	7.73	27.80	6.93	225.40
Last 5	10:14:16	1800.00	19.80	5.07	239.45	5.88	27.80	6.95	247.78
Last 5	10:19:16	2099.99	19.89	5.09	234.38	5.12	27.80	6.92	282.34
Last 5	10:24:16	2399.98	19.84	5.08	238.66	4.86	27.80	6.92	329.39
Variance 0			0.09	0.02	-3.82			0.02	22.38
Variance 1			0.09	0.02	-5.07			-0.03	34.56
Variance 2			-0.05	-0.01	4.28			0.00	47.04

Notes

Sampled at 10:25. Sunny 70s

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-12 14:11:53

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED Bladder Pump
Company Name	ACC	Tubing Type	poly
Project Name	Plant Yates- Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	31.05 ft
Latitude	33° 27' 39.74"		
Longitude	-84° -54' -27.69"		
Sonde SN	573204		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	26.0 ft

Well Information:		Pumping Information:	
Well ID	GWC-4R	Final Pumping Rate	170 mL/min
Well diameter	2 in	Total System Volume	0.7847173 L
Well Total Depth	31.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	15.03 ft	Total Volume Pumped	17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:46:30	4501.94	19.58	5.53	573.56	1.71	15.40	2.57	183.63
Last 5	13:51:30	4801.93	19.52	5.54	614.68	1.12	15.40	2.58	181.10
Last 5	13:56:33	5104.93	19.67	5.53	544.13	1.11	15.40	2.80	179.14
Last 5	14:01:33	5404.92	19.59	5.53	538.42	1.09	15.40	2.89	178.75
Last 5	14:06:36	5707.92	19.44	5.54	564.70	0.77	15.40	2.90	176.56
Variance 0			0.15	-0.01	-70.55			0.22	-1.95
Variance 1			-0.08	-0.00	-5.71			0.09	-0.39
Variance 2			-0.15	0.01	26.28			0.01	-2.19

Notes

Sampled at 14:10. Cloudy 70s. EB-1 here at 13:10 - peri Pump tubing

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-13 12:56:59

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED Bladder Pump
Company Name	ACC	Tubing Type	poly
Project Name	Plant Yates- Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	42 ft
Latitude	33° 27' 39.74"		
Longitude	-84° -54' -27.69"		
Sonde SN	573204		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-5R	Final Pumping Rate	140 mL/min
Well diameter	2 in	Total System Volume	0.8904147 L
Well Total Depth	42.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9 in
Depth to Water	27.43 ft	Total Volume Pumped	17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:30:43	5402.93	22.80	5.01	1657.38	6.82	28.20	7.95	378.03
Last 5	12:35:43	5703.31	22.72	5.01	1649.67	6.52	28.20	7.93	376.21
Last 5	12:40:43	6002.92	22.79	5.01	1648.09	5.85	28.20	7.94	376.02
Last 5	12:45:43	6302.91	22.80	5.01	1633.64	5.14	28.20	7.97	371.27
Last 5	12:50:43	6602.90	22.72	5.01	1626.22	4.37	28.20	7.89	367.63
Variance 0			0.06	0.00	-1.58			0.02	-0.18
Variance 1			0.01	-0.00	-14.45			0.03	-4.75
Variance 2			-0.09	0.01	-7.42			-0.08	-3.64

Notes

Sampled at 12:55. Sunny 80s. FB1 here at 11:10

Grab Samples

Product Name: Low-Flow System

Date: 2019-06-13 13:55:30

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED Bladder Pump
Company Name	ACC	Tubing Type	poly
Project Name	Plant Yates- Gypsum	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	52 ft
Latitude	33° 27' 39.74"		
Longitude	-84° -54' -27.69"		
Sonde SN	573204		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	47 ft

Well Information:		Pumping Information:	
Well ID	GWC-6R	Final Pumping Rate	160 mL/min
Well diameter	2 in	Total System Volume	0.986942 L
Well Total Depth	51.87 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	34.10 ft	Total Volume Pumped	6.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:29:41	600.00	18.62	5.86	1494.99	1.22	34.50	4.74	267.03
Last 5	13:34:41	899.99	18.73	5.85	1497.54	1.51	34.50	4.68	234.95
Last 5	13:39:41	1199.99	18.64	5.84	1506.53	0.72	34.50	4.66	215.11
Last 5	13:44:41	1499.98	18.72	5.84	1510.66	0.97	34.50	4.65	203.75
Last 5	13:49:41	1799.98	18.87	5.84	1521.21	0.54	34.50	4.64	204.28
Variance 0			-0.09	-0.01	8.99			-0.02	-19.84
Variance 1			0.08	-0.00	4.13			-0.01	-11.37
Variance 2			0.15	-0.00	10.55			-0.00	0.53

Notes

Sampled at 13:55. Sunny 80s.

Grab Samples

APPENDIX B

STATISTICAL ANALYSES

100% ND

Date: 8/16/2019 2:40 PM

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Antimony (mg/L)

GWC-1R, GWC-2R, GWC-5R, GWC-6R

Arsenic (mg/L)

GWC-2R

Beryllium (mg/L)

GWA-2, GWC-4R, GWC-6R

Cadmium (mg/L)

GWA-2, GWC-6R

Cobalt (mg/L)

GWC-5R

Lead (mg/L)

GWA-2, GWC-1R, GWC-4R, GWC-5R, GWC-6R

Selenium (mg/L)

GWA-2

Silver (mg/L)

GWA-2, GWC-1R, GWC-2R, GWC-3R, GWC-4R, GWC-5R, GWC-6R

Thallium (mg/L)

GWC-1R, GWC-3R, GWC-4R, GWC-5R, GWC-6R

Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 7/2/2019, 1:57 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	**GWC-1R**	**0.04**	**6/13/2019**	**0.057**	**Yes**	**10**	**60**	**n/a**	**0.01203**	NP (NDs) 1 of 2
Boron (mg/L)	**GWC-4R**	**0.04**	**6/12/2019**	**1.5**	**Yes**	**10**	**60**	**n/a**	**0.01203**	NP (NDs) 1 of 2
Calcium (mg/L)	**GWC-1R**	**19.74**	**6/13/2019**	**33.8**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Calcium (mg/L)	**GWC-2R**	**19.74**	**6/12/2019**	**26.6**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Calcium (mg/L)	**GWC-4R**	**19.74**	**6/12/2019**	**24.2**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Calcium (mg/L)	**GWC-5R**	**19.74**	**6/13/2019**	**127**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Calcium (mg/L)	**GWC-6R**	**19.74**	**6/13/2019**	**146**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-1R**	**4.835**	**6/13/2019**	**16.4**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-2R**	**4.835**	**6/12/2019**	**9.1**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-3R**	**4.835**	**6/13/2019**	**5**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-4R**	**4.835**	**6/12/2019**	**69.5**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-5R**	**4.835**	**6/13/2019**	**5.5**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-6R**	**4.835**	**6/13/2019**	**6.2**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Sulfate (mg/L)	**GWC-1R**	**94.04**	**6/13/2019**	**163**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Sulfate (mg/L)	**GWC-2R**	**94.04**	**6/12/2019**	**180**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Sulfate (mg/L)	**GWC-5R**	**94.04**	**6/13/2019**	**976**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Sulfate (mg/L)	**GWC-6R**	**94.04**	**6/13/2019**	**918**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	**GWC-1R**	**280.8**	**6/13/2019**	**301**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	**GWC-2R**	**280.8**	**6/12/2019**	**391**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	**GWC-4R**	**280.8**	**6/12/2019**	**298**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	**GWC-5R**	**280.8**	**6/13/2019**	**1410**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	**GWC-6R**	**280.8**	**6/13/2019**	**1310**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2

Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 7/2/2019, 1:57 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	**GWC-1R**	**0.04**	**6/13/2019**	**0.057**	**Yes**	**10**	**60**	**n/a**	**0.01203**	NP (NDs) 1 of 2
Boron (mg/L)	GWC-2R	0.04	6/12/2019	0.013	No	10	60	n/a	0.01203	NP (NDs) 1 of 2
Boron (mg/L)	GWC-3R	0.04	6/13/2019	0.04ND	No	10	60	n/a	0.01203	NP (NDs) 1 of 2
Boron (mg/L)	**GWC-4R**	**0.04**	**6/12/2019**	**1.5**	**Yes**	**10**	**60**	**n/a**	**0.01203**	NP (NDs) 1 of 2
Boron (mg/L)	GWC-5R	0.04	6/13/2019	0.03	No	10	60	n/a	0.01203	NP (NDs) 1 of 2
Boron (mg/L)	GWC-6R	0.04	6/13/2019	0.04ND	No	10	60	n/a	0.01203	NP (NDs) 1 of 2
Calcium (mg/L)	**GWC-1R**	**19.74**	**6/13/2019**	**33.8**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Calcium (mg/L)	**GWC-2R**	**19.74**	**6/12/2019**	**26.6**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Calcium (mg/L)	GWC-3R	19.74	6/13/2019	15.7	No	10	10	No	0.001254	Param 1 of 2
Calcium (mg/L)	**GWC-4R**	**19.74**	**6/12/2019**	**24.2**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Calcium (mg/L)	**GWC-5R**	**19.74**	**6/13/2019**	**127**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Calcium (mg/L)	**GWC-6R**	**19.74**	**6/13/2019**	**146**	**Yes**	**10**	**10**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-1R**	**4.835**	**6/13/2019**	**16.4**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-2R**	**4.835**	**6/12/2019**	**9.1**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-3R**	**4.835**	**6/13/2019**	**5**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-4R**	**4.835**	**6/12/2019**	**69.5**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-5R**	**4.835**	**6/13/2019**	**5.5**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Chloride (mg/L)	**GWC-6R**	**4.835**	**6/13/2019**	**6.2**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Sulfate (mg/L)	**GWC-1R**	**94.04**	**6/13/2019**	**163**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Sulfate (mg/L)	**GWC-2R**	**94.04**	**6/12/2019**	**180**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Sulfate (mg/L)	GWC-3R	94.04	6/13/2019	77.1	No	10	0	No	0.001254	Param 1 of 2
Sulfate (mg/L)	GWC-4R	94.04	6/12/2019	92.8	No	10	0	No	0.001254	Param 1 of 2
Sulfate (mg/L)	**GWC-5R**	**94.04**	**6/13/2019**	**976**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
Sulfate (mg/L)	**GWC-6R**	**94.04**	**6/13/2019**	**918**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	**GWC-1R**	**280.8**	**6/13/2019**	**301**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	**GWC-2R**	**280.8**	**6/12/2019**	**391**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	GWC-3R	280.8	6/13/2019	136	No	10	0	No	0.001254	Param 1 of 2
TDS (mg/L)	**GWC-4R**	**280.8**	**6/12/2019**	**298**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	**GWC-5R**	**280.8**	**6/13/2019**	**1410**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2
TDS (mg/L)	**GWC-6R**	**280.8**	**6/13/2019**	**1310**	**Yes**	**10**	**0**	**No**	**0.001254**	Param 1 of 2

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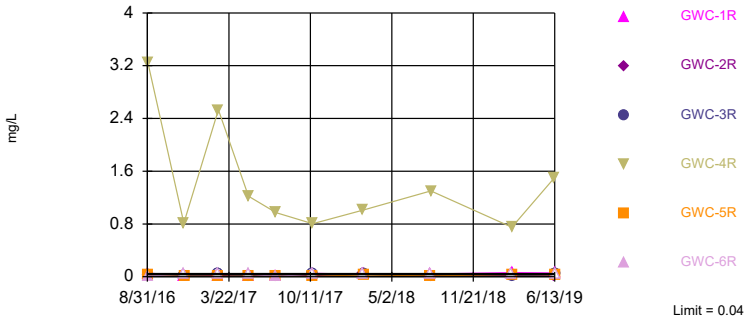
Hollow symbols indicate censored values.

Exceeds Limit: GWC-1R, GWC-4R

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 10 background values. 60% NDs. Annual per-constituent alpha = 0.1352. Individual comparison alpha = 0.01203 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 7/2/2019 1:54 PM View: Appendix III Interwell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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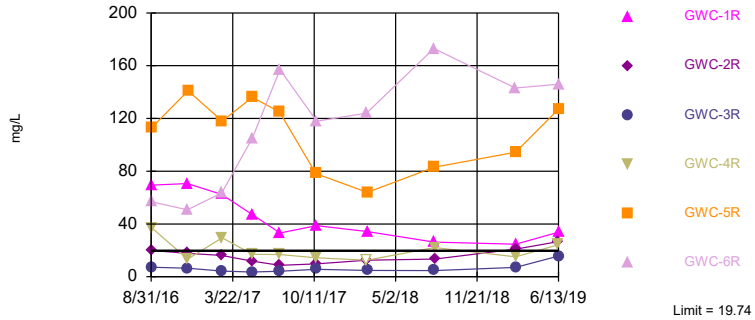
Hollow symbols indicate censored values.

Exceeds Limit: GWC-1R, GWC-2R, GWC-4R, GWC-5R, GWC-6R

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=12.66, Std. Dev.=2.836, n=10, 10% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.913, critical = 0.781. Kappa = 2.497 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Calcium Analysis Run 7/2/2019 1:54 PM View: Appendix III Interwell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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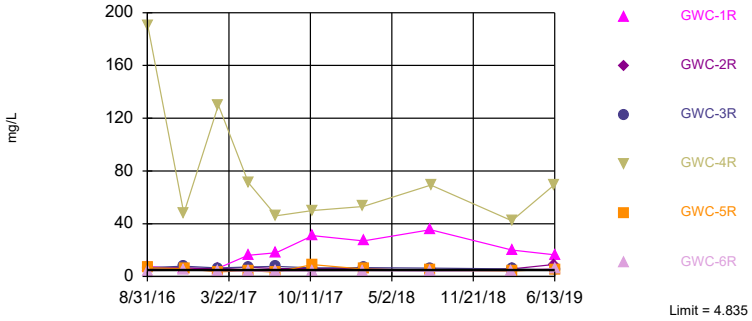
Exceeds Limit: GWC-1R, GWC-2R, GWC-3R, GWC-4R, GWC-5R, GWC-6R

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=4.1, Std. Dev.=0.2944, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9319, critical = 0.781. Kappa = 2.497 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

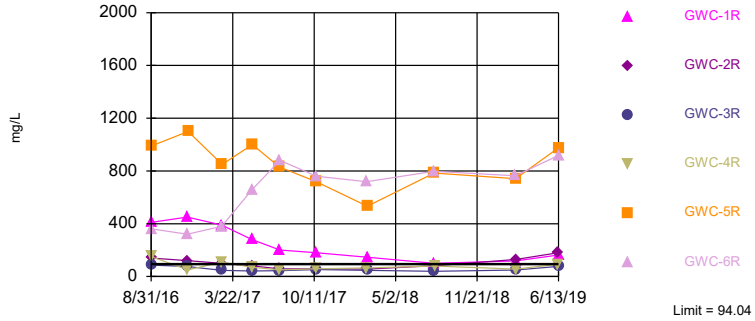
Constituent: Chloride Analysis Run 7/2/2019 1:54 PM View: Appendix III Interwell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.18 Sanitas software licensed to ACC. UG

Exceeds Limit: GWC-1R, GWC-2R, GWC-5R, GWC-6R

Prediction Limit

Interwell Parametric



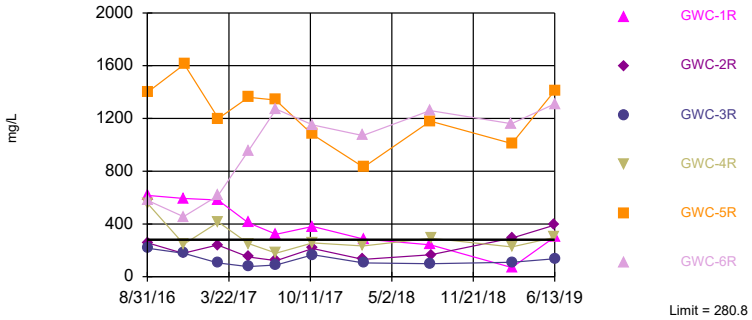
Background Data Summary: Mean=52.52, Std. Dev.=16.63, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9342, critical = 0.781. Kappa = 2.497 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Sulfate Analysis Run 7/2/2019 1:54 PM View: Appendix III Interwell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Exceeds Limit: GWC-1R, GWC-2R, GWC-4R, GWC-5R, GWC-6R

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=167.2, Std. Dev.=45.5, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9416, critical = 0.781. Kappa = 2.497 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: TDS Analysis Run 7/2/2019 1:54 PM View: Appendix III Interwell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/2/2019 1:57 PM View: Appendix III Interwell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-2R	GWC-3R	GWC-1R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	0.0315 (J)	0.0305 (J)	0.0315 (J)	0.0553 (J)			
9/1/2016					3.25	0.0191 (J)	0.0108 (J)
11/28/2016	0.0095 (J)	0.0206 (J)					
11/29/2016				0.0149 (J)			<0.04
11/30/2016			0.0089 (J)		0.813		
12/1/2016						0.0088 (J)	
2/22/2017	<0.04	0.0192 (J)					
2/23/2017			<0.04	0.0082 (J)			<0.04
2/24/2017					2.53	0.0067 (J)	
5/8/2017	0.0084 (J)						
5/9/2017			0.0077 (J)	0.0097 (J)			
5/10/2017		0.0179 (J)			1.22	0.0068 (J)	<0.04
7/17/2017	0.0092 (J)					0.0102 (J)	
7/18/2017		0.0169 (J)	0.0073 (J)	0.0123 (J)	0.97		0.0061 (J)
10/16/2017	<0.04					0.0066 (J)	
10/17/2017		0.0168 (J)		0.0513	0.804		
10/18/2017			<0.04				<0.04
2/19/2018	<0.04						<0.04
2/20/2018		<0.04			1.01		
2/21/2018			0.0399 (J)	0.0378 (J)		0.0268 (J)	
8/6/2018	<0.04						<0.04
8/7/2018			0.0049 (J)	0.043		0.012 (J)	
8/8/2018		0.017 (J)			1.3		
2/25/2019	<0.04						<0.04
2/26/2019		0.017 (J)	0.0053 (J)	0.062	0.75	0.033 (J)	
6/12/2019	<0.04	0.013 (J)			1.5		
6/13/2019			<0.04	0.057		0.03 (J)	<0.04

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 7/2/2019 1:57 PM View: Appendix III Interwell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-2R	GWC-3R	GWC-1R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	9.31	19.9	7.23	69.4			
9/1/2016					37.1	113	56.8
11/28/2016	9.47 (B)	17.7 (B)					
11/29/2016				70.6 (B)			50.7 (B)
11/30/2016			6.43 (B)		13.4 (B)		
12/1/2016						141 (B)	
2/22/2017	10.4	16.2					
2/23/2017			4.25	62.4			63.5
2/24/2017					29.5	118	
5/8/2017	14.2						
5/9/2017			3.56	47.4			
5/10/2017		11.8			17	136	105
7/17/2017	14.1					125	
7/18/2017		8.69	4.16	33.2	16.8		157
10/16/2017	13.6					78.2	
10/17/2017		9.77		38.7	14.3		
10/18/2017			5.67				118
2/19/2018	<25						124
2/20/2018		<25			<25		
2/21/2018			4.76	34.3		64	
8/6/2018	11.4 (J)						173
8/7/2018			4.7	26.2		83	
8/8/2018		13.4 (J)			22.1 (J)		
2/25/2019	12.7 (J)						143
2/26/2019		20.9 (J)	7.1	24.7 (J)	15.1 (J)	94.4	
6/12/2019	18.9	26.6			24.2		
6/13/2019			15.7	33.8		127	146

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 7/2/2019 1:57 PM View: Appendix III Interwell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-2R	GWC-3R	GWC-1R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	4	6.3	6.7	7.6			
9/1/2016					190	6.6	4.4
11/28/2016	4.2	6.7					
11/29/2016				5.8			4.8
11/30/2016			7.8		48		
12/1/2016						6	
2/22/2017	3.7	5.7					
2/23/2017			6.5	6.2			4.4
2/24/2017					130	3.4	
5/8/2017	4.2						
5/9/2017			7.2	16			
5/10/2017		7.1			71	4.5	3.9
7/17/2017	3.8					3.2	
7/18/2017		6	7.7	18	46		4
10/16/2017	4.2					9	
10/17/2017		6.1		31	50		
10/18/2017			6.5				4.1
2/19/2018	4.3						4.4
2/20/2018		5.8			53.1		
2/21/2018			6.7	27		5.6	
8/6/2018	3.8						3.9
8/7/2018			6.3	35.4		4.7	
8/8/2018		4.7			69.3		
2/25/2019	4.1						4.4
2/26/2019		5.7	5.7	20	42.2	4.2	
6/12/2019	4.7	9.1			69.5		
6/13/2019			5	16.4		5.5	6.2

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/2/2019 1:57 PM View: Appendix III Interwell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-2R	GWC-3R	GWC-1R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	29	140	87	410			
9/1/2016					150	990	360
11/28/2016	36	120					
11/29/2016				450			320
11/30/2016			76		50		
12/1/2016						1100	
2/22/2017	43	100					
2/23/2017			47	390			380
2/24/2017					110	850	
5/8/2017	60						
5/9/2017			41	280			
5/10/2017		80			70	1000	660
7/17/2017	63					830	
7/18/2017		57	44	200	50		880
10/16/2017	62					720	
10/17/2017		59		180	58		
10/18/2017			53				760
2/19/2018	64.6						718
2/20/2018		55.9			64.6		
2/21/2018			46.7	146		533	
8/6/2018	42.1						797
8/7/2018			38.8	100		784	
8/8/2018		81.1			79.5		
2/25/2019	42.1						763
2/26/2019		129	49.3	118	55.8	742	
6/12/2019	83.4	180			92.8		
6/13/2019			77.1	163		976	918

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/2/2019 1:57 PM View: Appendix III Interwell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-2R	GWC-3R	GWC-1R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	209	257	216	616			
9/1/2016					553	1400	578
11/28/2016	102	177					
11/29/2016				594			455
11/30/2016			177 (B)		247 (B)		
12/1/2016						1610 (B)	
2/22/2017	164	240					
2/23/2017			105	581			614
2/24/2017					414	1200	
5/8/2017	145						
5/9/2017			77	410			
5/10/2017		149			251	1360	955
7/17/2017	185					1340	
7/18/2017		122	89	322	179		1270
10/16/2017	218					1080	
10/17/2017		214		381	256		
10/18/2017			166				1150
2/19/2018	173						1070
2/20/2018		131			233		
2/21/2018			105	285		830	
8/6/2018	158						1260
8/7/2018			99	242		1180	
8/8/2018		166			292		
2/25/2019	92						1160
2/26/2019		293	109	69	226	1010	
6/12/2019	226	391			298		
6/13/2019			136	301		1410	1310

Intrawell Prediction Limit Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 8/27/2019, 1:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	**GWC-2R**	**0.3**	**n/a**	**6/12/2019**	**0.58**	**Yes**	**9**	**55.56**	**n/a**	**0.01809**	NP (NDs) 1 of 2
Fluoride (mg/L)	**GWC-3R**	**0.3**	**n/a**	**6/13/2019**	**0.58**	**Yes**	**9**	**55.56**	**n/a**	**0.01809**	NP (NDs) 1 of 2
pH (S.U.)	**GWC-1R**	**5.52**	**4.49**	**6/13/2019**	**5.55**	**Yes**	**9**	**0**	**n/a**	**0.03619**	NP (normality) 1 of 2

Intrawell Prediction Limit All Results

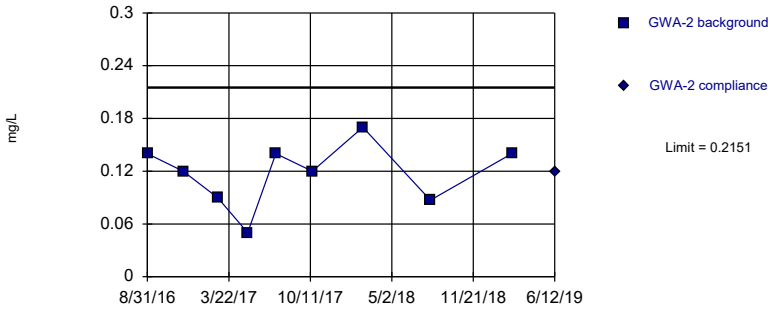
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 8/27/2019, 1:44 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	GWA-2	0.2151	n/a	6/12/2019	0.12	No	9	0	No	0.001254	Param 1 of 2
Fluoride (mg/L)	GWC-1R	0.3	n/a	6/13/2019	0.3ND	No	9	55.56	n/a	0.01809	NP (NDs) 1 of 2
Fluoride (mg/L)	**GWC-2R**	**0.3**	**n/a**	**6/12/2019**	**0.58**	**Yes**	**9**	**55.56**	**n/a**	**0.01809**	NP (NDs) 1 of 2
Fluoride (mg/L)	**GWC-3R**	**0.3**	**n/a**	**6/13/2019**	**0.58**	**Yes**	**9**	**55.56**	**n/a**	**0.01809**	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-4R	0.3	n/a	6/12/2019	0.3ND	No	9	55.56	n/a	0.01809	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-5R	0.37	n/a	6/13/2019	0.3ND	No	9	55.56	n/a	0.01809	NP (NDs) 1 of 2
Fluoride (mg/L)	GWC-6R	0.3	n/a	6/13/2019	0.3ND	No	9	55.56	n/a	0.01809	NP (NDs) 1 of 2
pH (S.U.)	GWA-2	7.106	5.427	6/12/2019	6.3	No	21	0	No	0.0006268	Param 1 of 2
pH (S.U.)	**GWC-1R**	**5.52**	**4.49**	**6/13/2019**	**5.55**	**Yes**	**9**	**0**	**n/a**	**0.03619**	NP (normality) 1 of 2
pH (S.U.)	GWC-2R	6.8	4.35	6/12/2019	5.38	No	16	0	n/a	0.01291	NP (normality) 1 of 2
pH (S.U.)	GWC-3R	5.28	4.31	6/13/2019	5.08	No	9	0	n/a	0.03619	NP (normality) 1 of 2
pH (S.U.)	GWC-4R	6.245	4.827	6/12/2019	5.54	No	10	0	No	0.0006268	Param 1 of 2
pH (S.U.)	GWC-5R	5.711	4.765	6/13/2019	5.01	No	9	0	No	0.0006268	Param 1 of 2
pH (S.U.)	GWC-6R	6.687	5.169	6/13/2019	5.84	No	19	0	No	0.0006268	Param 1 of 2

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1174, Std. Dev.=0.03628, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9425, critical = 0.764. Kappa = 2.69 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Fluoride Analysis Run 8/27/2019 1:41 PM View: Appendix III Intrawell PL

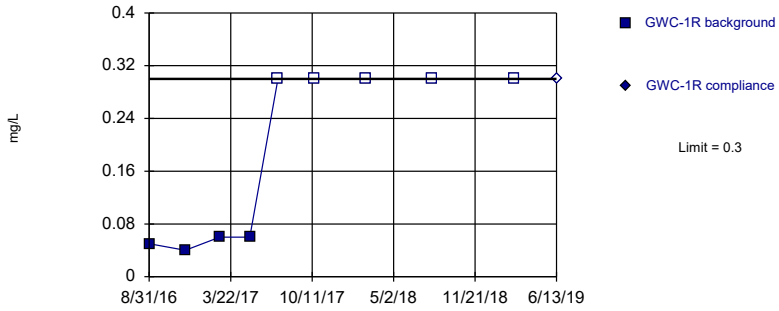
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 8/27/2019 1:41 PM View: Appendix III Intrawell PL

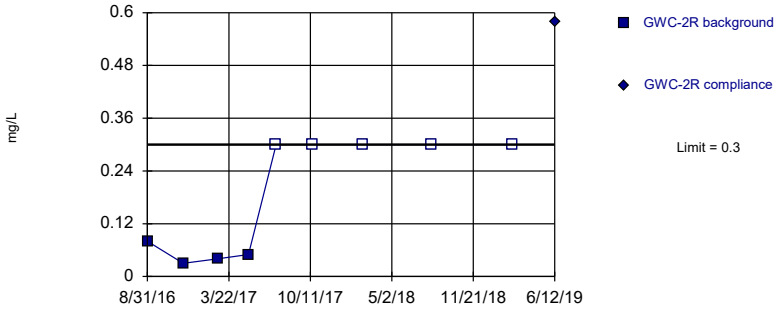
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL

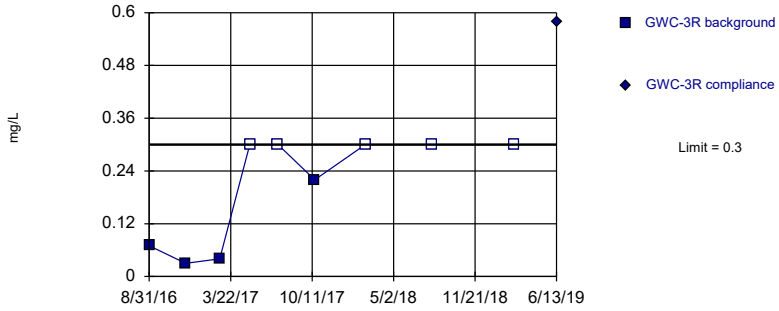
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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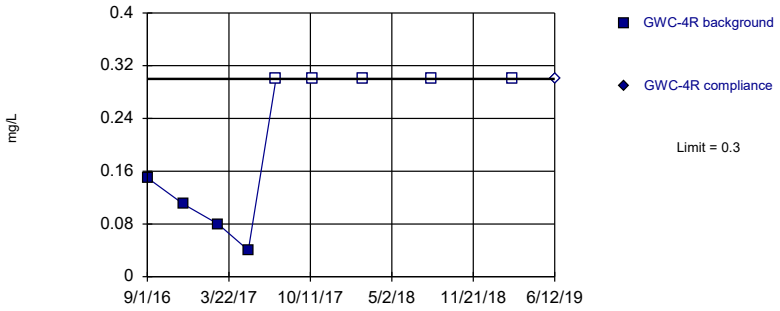
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



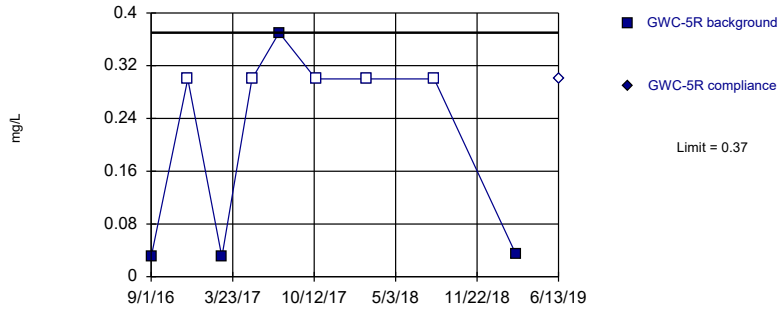
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



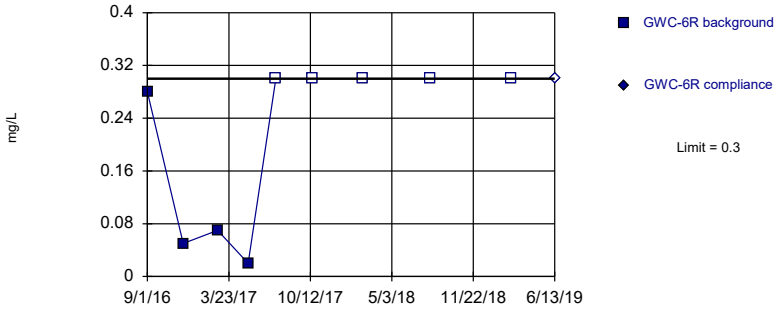
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 9 background values. 55.56% NDs. Well-constituent pair annual alpha = 0.03586. Individual comparison alpha = 0.01809 (1 of 2).

Constituent: Fluoride Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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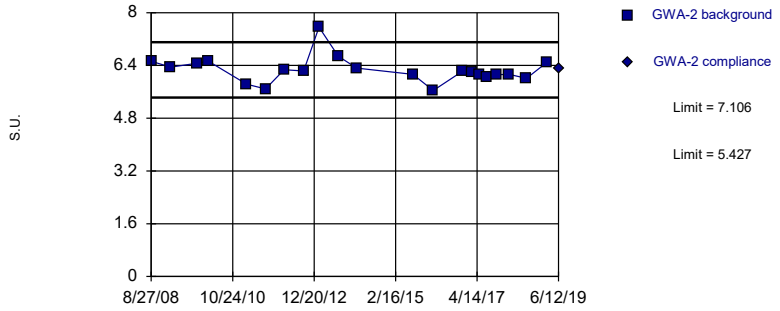
Within Limits

Prediction Limit

Intrawell Parametric



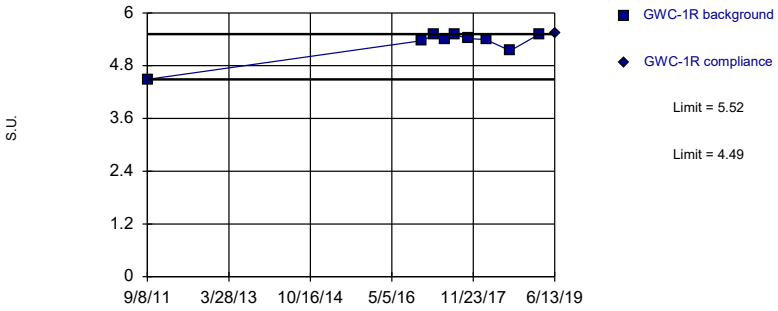
Background Data Summary: Mean=6.266, Std. Dev.=0.401, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8754, critical = 0.873. Kappa = 2.094 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Exceeds Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 9 background values. Well-constituent pair annual alpha = 0.07172. Individual comparison alpha = 0.03619 (1 of 2).

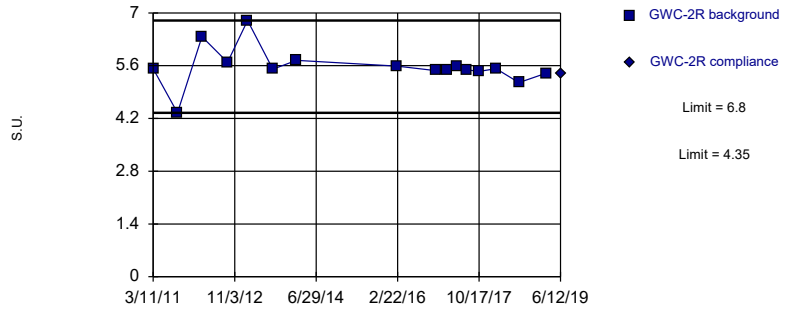
Constituent: pH Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 16 background values. Well-constituent pair annual alpha = 0.02574. Individual comparison alpha = 0.01291 (1 of 2).

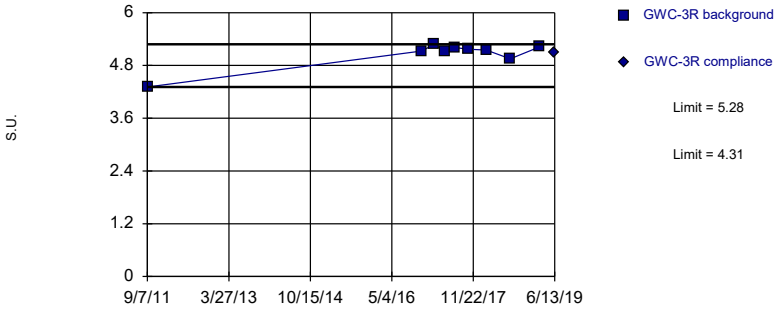
Constituent: pH Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 9 background values. Well-constituent pair annual alpha = 0.07172. Individual comparison alpha = 0.03619 (1 of 2).

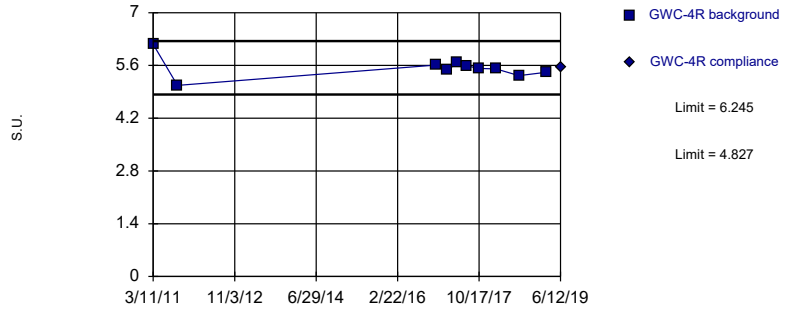
Constituent: pH Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.536, Std. Dev.=0.2783, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9104, critical = 0.781. Kappa = 2.549 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

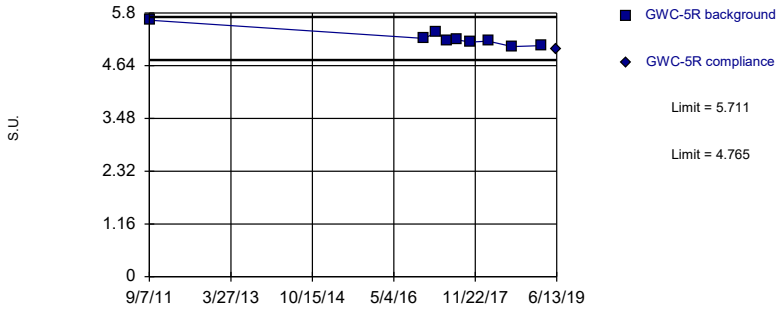
Constituent: pH Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.238, Std. Dev.=0.1758, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8341, critical = 0.764. Kappa = 2.69 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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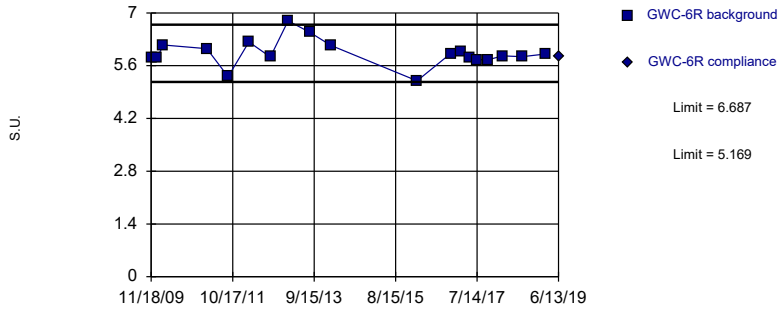
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.928, Std. Dev.=0.3559, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9219, critical = 0.863. Kappa = 2.132 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: pH Analysis Run 8/27/2019 1:42 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Prediction Limit

Constituent: Fluoride Analysis Run 8/27/2019 1:44 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R
8/31/2016	0.14 (J)		0.05 (J)		0.08 (J)		0.07 (J)	
11/28/2016	0.12 (J)				0.03 (J)			
11/29/2016			0.04 (J)					
11/30/2016							0.03 (J)	
2/22/2017	0.09 (J)				0.04 (J)			
2/23/2017			0.06 (J)				0.04 (J)	
5/8/2017	0.05 (J)							
5/9/2017			0.06 (J)				<0.3	
5/10/2017					0.05 (J)			
7/17/2017	0.14 (J)							
7/18/2017			<0.3		<0.3		<0.3	
10/16/2017	0.12 (J)							
10/17/2017			<0.3		<0.3			
10/18/2017							0.22 (J)	
2/19/2018	0.17							
2/20/2018					<0.3			
2/21/2018			<0.3				<0.3	
8/6/2018	0.087 (J)							
8/7/2018			<0.3				<0.3	
8/8/2018					<0.3			
2/25/2019	0.14 (J)							
2/26/2019			<0.3		<0.3		<0.3	
6/12/2019		0.12 (J)				0.58		
6/13/2019				<0.3				0.58

Prediction Limit

Constituent: Fluoride, pH Analysis Run 8/27/2019 1:44 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R	GWA-2	GWA-2
8/27/2008							6.53	
3/3/2009							6.35	
11/18/2009							6.47	
3/3/2010							6.53	
3/10/2011							5.83	
9/8/2011							5.69	
3/5/2012							6.27	
9/10/2012							6.23	
2/6/2013							7.56	
8/12/2013							6.68	
2/5/2014							6.32	
8/3/2015							6.13 (D)	
2/16/2016							5.64	
9/1/2016	0.15 (J)		0.03 (J)		0.28 (J)			
11/28/2016							6.23	
11/29/2016					0.05 (J)			
11/30/2016	0.11 (J)							
12/1/2016			<0.3					
2/22/2017							6.21	
2/23/2017					0.07 (J)			
2/24/2017	0.08 (J)		0.03 (J)					
5/8/2017							6.12	
5/10/2017	0.04 (J)		<0.3		0.02 (J)			
7/17/2017			0.37				6.03	
7/18/2017	<0.3				<0.3			
10/16/2017			<0.3				6.12	
10/17/2017	<0.3							
10/18/2017					<0.3			
2/19/2018					<0.3		6.13	
2/20/2018	<0.3							
2/21/2018			<0.3					
8/6/2018					<0.3		6.01	
8/7/2018			<0.3					
8/8/2018	<0.3							
2/25/2019					<0.3		6.51	
2/26/2019	<0.3		0.035 (J)					
6/12/2019		<0.3						6.3
6/13/2019				<0.3		<0.3		

Prediction Limit

Constituent: pH Analysis Run 8/27/2019 1:44 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R	GWC-4R	GWC-4R
3/11/2011			5.52				6.16	
9/7/2011			4.35		4.31		5.07	
9/8/2011	4.49							
3/6/2012			6.37					
9/11/2012			5.69					
2/6/2013			6.8					
8/13/2013			5.51					
2/4/2014			5.74					
2/17/2016			5.59					
11/28/2016			5.47					
11/29/2016	5.37							
11/30/2016					5.13		5.61	
2/22/2017			5.48					
2/23/2017	5.5				5.28			
2/24/2017							5.47	
5/9/2017	5.41				5.12			
5/10/2017			5.6				5.68	
7/18/2017	5.5		5.49		5.21		5.59	
10/17/2017	5.42		5.45				5.52	
10/18/2017					5.17			
2/20/2018			5.52				5.51	
2/21/2018	5.39				5.15			
8/7/2018	5.14				4.95			
8/8/2018			5.15				5.33	
2/26/2019	5.52		5.4		5.22		5.42	
6/12/2019				5.38				5.54
6/13/2019		5.55				5.08		

Prediction Limit

Constituent: pH Analysis Run 8/27/2019 1:44 PM View: Appendix III Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R	GWC-6R	GWC-6R
11/18/2009			5.82	
1/5/2010			5.8	
3/3/2010			6.15	
3/10/2011			6.05	
9/7/2011	5.64			
9/8/2011			5.31	
3/5/2012			6.23	
9/5/2012			5.83	
2/5/2013			6.79	
8/13/2013			6.48	
2/4/2014			6.14	
2/16/2016			5.2	
11/29/2016			5.92	
12/1/2016	5.24			
2/23/2017			5.97	
2/24/2017	5.37			
5/10/2017	5.2		5.82	
7/17/2017	5.21			
7/18/2017			5.76	
10/16/2017	5.16			
10/18/2017			5.76	
2/19/2018			5.86	
2/21/2018	5.18			
8/6/2018			5.84	
8/7/2018	5.06			
2/25/2019			5.91	
2/26/2019	5.08			
6/13/2019		5.01		5.84

Intrawell Prediction Limit Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 8/27/2019, 1:52 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	**GWC-3R**	**0.01**	**6/13/2019**	**0.01**	**Yes**	**18**	**100**	**n/a**	**0.005373**	NP (NDs) 1 of 2

Intrawell Prediction Limit All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 8/27/2019, 1:52 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GWA-2	0.003	6/12/2019	0.003ND	No	27	96.3	n/a	0.002502	NP (NDs) 1 of 2
Antimony (mg/L)	GWC-4R	0.003	6/12/2019	0.00028	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Arsenic (mg/L)	GWA-2	0.005	6/12/2019	0.00038	No	27	100	n/a	0.002502	NP (NDs) 1 of 2
Arsenic (mg/L)	GWC-1R	0.005	6/13/2019	0.005ND	No	18	88.89	n/a	0.005373	NP (NDs) 1 of 2
Arsenic (mg/L)	GWC-3R	0.005	6/13/2019	0.0016	No	18	100	n/a	0.005373	NP (NDs) 1 of 2
Arsenic (mg/L)	GWC-4R	0.005	6/12/2019	0.00037	No	23	100	n/a	0.003415	NP (NDs) 1 of 2
Arsenic (mg/L)	GWC-5R	0.005	6/13/2019	0.0012	No	18	72.22	n/a	0.005373	NP (NDs) 1 of 2
Arsenic (mg/L)	GWC-6R	0.005	6/13/2019	0.00068	No	24	83.33	n/a	0.003124	NP (NDs) 1 of 2
Barium (mg/L)	GWA-2	0.07657	6/12/2019	0.063	No	27	0	No	0.001254	Param 1 of 2
Barium (mg/L)	GWC-1R	0.08718	6/13/2019	0.033	No	18	0	No	0.001254	Param 1 of 2
Barium (mg/L)	GWC-2R	0.13	6/12/2019	0.046	No	23	0	n/a	0.003415	NP (normality) 1 of 2
Barium (mg/L)	GWC-3R	0.09742	6/13/2019	0.021	No	18	0	sqrt(x)	0.001254	Param 1 of 2
Barium (mg/L)	GWC-4R	0.07177	6/12/2019	0.017	No	19	0	sqrt(x)	0.001254	Param 1 of 2
Barium (mg/L)	GWC-5R	0.05972	6/13/2019	0.014	No	14	0	No	0.001254	Param 1 of 2
Barium (mg/L)	GWC-6R	0.09701	6/13/2019	0.062	No	24	0	No	0.001254	Param 1 of 2
Beryllium (mg/L)	GWC-1R	0.003	6/13/2019	0.003ND	No	18	66.67	n/a	0.005373	NP (NDs) 1 of 2
Beryllium (mg/L)	GWC-2R	0.003	6/12/2019	0.003ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Beryllium (mg/L)	GWC-3R	0.003	6/13/2019	0.00051	No	18	38.89	n/a	0.005373	NP (normality) 1 of 2
Beryllium (mg/L)	GWC-5R	0.003	6/13/2019	0.0015	No	18	38.89	n/a	0.005373	NP (normality) 1 of 2
Cadmium (mg/L)	GWC-1R	0.001	6/13/2019	0.001ND	No	18	94.44	n/a	0.005373	NP (NDs) 1 of 2
Cadmium (mg/L)	GWC-2R	0.001	6/12/2019	0.001ND	No	23	91.3	n/a	0.003415	NP (NDs) 1 of 2
Cadmium (mg/L)	GWC-3R	0.001	6/13/2019	0.00021	No	18	88.89	n/a	0.005373	NP (NDs) 1 of 2
Cadmium (mg/L)	GWC-4R	0.001	6/12/2019	0.001ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2
Cadmium (mg/L)	GWC-5R	0.001	6/13/2019	0.00073	No	18	44.44	n/a	0.005373	NP (normality) 1 of 2
Chromium (mg/L)	GWA-2	0.01	6/12/2019	0.01ND	No	27	70.37	n/a	0.002502	NP (NDs) 1 of 2
Chromium (mg/L)	GWC-1R	0.01	6/13/2019	0.0009	No	18	61.11	n/a	0.005373	NP (NDs) 1 of 2
Chromium (mg/L)	GWC-2R	0.01	6/12/2019	0.01ND	No	23	91.3	n/a	0.003415	NP (NDs) 1 of 2
Chromium (mg/L)	GWC-3R	0.01	6/13/2019	0.00073	No	18	33.33	n/a	0.005373	NP (normality) 1 of 2
Chromium (mg/L)	GWC-4R	0.01	6/12/2019	0.01ND	No	23	82.61	n/a	0.003415	NP (NDs) 1 of 2
Chromium (mg/L)	GWC-5R	0.01	6/13/2019	0.0018	No	18	27.78	n/a	0.005373	NP (normality) 1 of 2
Chromium (mg/L)	GWC-6R	0.01	6/13/2019	0.00089	No	24	41.67	n/a	0.003124	NP (normality) 1 of 2
Cobalt (mg/L)	GWA-2	0.01	6/12/2019	0.003	No	27	40.74	n/a	0.002502	NP (normality) 1 of 2
Cobalt (mg/L)	GWC-1R	0.01	6/13/2019	0.00033	No	17	52.94	n/a	0.005914	NP (NDs) 1 of 2
Cobalt (mg/L)	GWC-2R	0.04451	6/12/2019	0.013	No	23	4.348	No	0.001254	Param 1 of 2
Cobalt (mg/L)	**GWC-3R**	**0.01**	**6/13/2019**	**0.01**	**Yes**	**18**	**100**	**n/a**	**0.005373**	NP (NDs) 1 of 2
Cobalt (mg/L)	GWC-4R	0.01	6/12/2019	0.00078	No	23	34.78	n/a	0.003415	NP (normality) 1 of 2
Cobalt (mg/L)	GWC-6R	0.01	6/13/2019	0.01ND	No	24	95.83	n/a	0.003124	NP (NDs) 1 of 2
Copper (mg/L)	GWA-2	0.025	6/12/2019	0.00034	No	22	54.55	n/a	0.003707	NP (NDs) 1 of 2
Copper (mg/L)	GWC-1R	0.025	6/13/2019	0.025ND	No	13	92.31	n/a	0.009692	NP (NDs) 1 of 2
Copper (mg/L)	GWC-3R	0.025	6/13/2019	0.025ND	No	13	76.92	n/a	0.009692	NP (NDs) 1 of 2
Copper (mg/L)	GWC-4R	0.025	6/12/2019	0.00025	No	18	88.89	n/a	0.005373	NP (NDs) 1 of 2
Copper (mg/L)	GWC-5R	0.025	6/13/2019	0.00049	No	13	92.31	n/a	0.009692	NP (NDs) 1 of 2
Copper (mg/L)	GWC-6R	0.005	6/13/2019	0.0011	No	19	57.89	n/a	0.004832	NP (NDs) 1 of 2
Lead (mg/L)	GWC-2R	0.005	6/12/2019	0.005ND	No	23	91.3	n/a	0.003415	NP (NDs) 1 of 2
Lead (mg/L)	GWC-3R	0.005	6/13/2019	0.005ND	No	18	88.89	n/a	0.005373	NP (NDs) 1 of 2
Mercury (mg/L)	GWA-2	0.0005	6/12/2019	0.0005ND	No	27	96.3	n/a	0.002502	NP (NDs) 1 of 2
Mercury (mg/L)	GWC-1R	0.0005	6/13/2019	0.0005ND	No	18	100	n/a	0.005373	NP (NDs) 1 of 2
Mercury (mg/L)	GWC-2R	0.0005	6/12/2019	0.0005ND	No	23	100	n/a	0.003415	NP (NDs) 1 of 2
Mercury (mg/L)	GWC-3R	0.0005	6/13/2019	0.0005ND	No	18	94.44	n/a	0.005373	NP (NDs) 1 of 2
Mercury (mg/L)	GWC-4R	0.0005	6/12/2019	0.0005ND	No	23	95.65	n/a	0.003415	NP (NDs) 1 of 2

Intrawell Prediction Limit All Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 8/27/2019, 1:52 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Mercury (mg/L)	GWC-5R	0.0005	6/13/2019	0.0005ND	No	18	100	n/a	0.005373	NP (NDs) 1 of 2
Mercury (mg/L)	GWC-6R	0.0005	6/13/2019	0.0005ND	No	24	95.83	n/a	0.003124	NP (NDs) 1 of 2
Nickel (mg/L)	GWA-2	0.021	6/12/2019	0.0038	No	22	13.64	n/a	0.003707	NP (normality) 1 of 2
Nickel (mg/L)	GWC-1R	0.01092	6/13/2019	0.00072	No	13	38.46	ln(x)	0.001254	Param 1 of 2
Nickel (mg/L)	GWC-2R	0.01	6/12/2019	0.00043	No	18	44.44	n/a	0.005373	NP (normality) 1 of 2
Nickel (mg/L)	GWC-3R	0.01	6/13/2019	0.01ND	No	13	69.23	n/a	0.009692	NP (NDs) 1 of 2
Nickel (mg/L)	GWC-4R	0.01	6/12/2019	0.00082	No	18	77.78	n/a	0.005373	NP (NDs) 1 of 2
Nickel (mg/L)	GWC-5R	0.005534	6/13/2019	0.0019	No	13	30.77	No	0.001254	Param 1 of 2
Nickel (mg/L)	GWC-6R	0.005	6/13/2019	0.0037	No	19	89.47	n/a	0.004832	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-1R	0.01	6/13/2019	0.01ND	No	18	66.67	n/a	0.005373	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-2R	0.01	6/12/2019	0.0034	No	23	69.57	n/a	0.003415	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-3R	0.01	6/13/2019	0.0089	No	18	61.11	n/a	0.005373	NP (NDs) 1 of 2
Selenium (mg/L)	GWC-4R	0.01466	6/12/2019	0.0029	No	23	34.78	No	0.001254	Param 1 of 2
Selenium (mg/L)	GWC-5R	0.03974	6/13/2019	0.027	No	18	5.556	sqrt(x)	0.001254	Param 1 of 2
Selenium (mg/L)	GWC-6R	0.01	6/13/2019	0.0048	No	24	70.83	n/a	0.003124	NP (NDs) 1 of 2
Thallium (mg/L)	GWA-2	0.001	6/12/2019	0.001ND	No	26	88.46	n/a	0.002667	NP (NDs) 1 of 2
Thallium (mg/L)	GWC-2R	0.001	6/12/2019	0.001ND	No	21	95.24	n/a	0.003999	NP (NDs) 1 of 2
Vanadium (mg/L)	GWA-2	0.01	6/12/2019	0.0032	No	24	83.33	n/a	0.003124	NP (NDs) 1 of 2
Vanadium (mg/L)	GWC-1R	0.01	6/13/2019	0.01ND	No	15	80	n/a	0.007533	NP (NDs) 1 of 2
Vanadium (mg/L)	GWC-2R	0.01	6/12/2019	0.00079	No	20	100	n/a	0.004291	NP (NDs) 1 of 2
Vanadium (mg/L)	GWC-3R	0.01	6/13/2019	0.0021	No	15	100	n/a	0.007533	NP (NDs) 1 of 2
Vanadium (mg/L)	GWC-4R	0.01	6/12/2019	0.00088	No	20	100	n/a	0.004291	NP (NDs) 1 of 2
Vanadium (mg/L)	GWC-5R	0.01	6/13/2019	0.01ND	No	15	80	n/a	0.007533	NP (NDs) 1 of 2
Vanadium (mg/L)	GWC-6R	0.01	6/13/2019	0.01ND	No	21	76.19	n/a	0.003999	NP (NDs) 1 of 2
Zinc (mg/L)	GWA-2	0.009123	6/12/2019	0.01ND	No	23	4.348	No	0.001254	Param 1 of 2
Zinc (mg/L)	GWC-1R	0.006525	6/13/2019	0.01ND	No	15	20	sqrt(x)	0.001254	Param 1 of 2
Zinc (mg/L)	GWC-2R	0.01144	6/12/2019	0.0019	No	20	10	sqrt(x)	0.001254	Param 1 of 2
Zinc (mg/L)	GWC-3R	0.01293	6/13/2019	0.0069	No	14	7.143	No	0.001254	Param 1 of 2
Zinc (mg/L)	GWC-4R	0.01	6/12/2019	0.01ND	No	19	63.16	n/a	0.004832	NP (NDs) 1 of 2
Zinc (mg/L)	GWC-5R	0.01681	6/13/2019	0.015	No	15	0	No	0.001254	Param 1 of 2
Zinc (mg/L)	GWC-6R	0.01	6/13/2019	0.01ND	No	21	33.33	n/a	0.003999	NP (normality) 1 of 2

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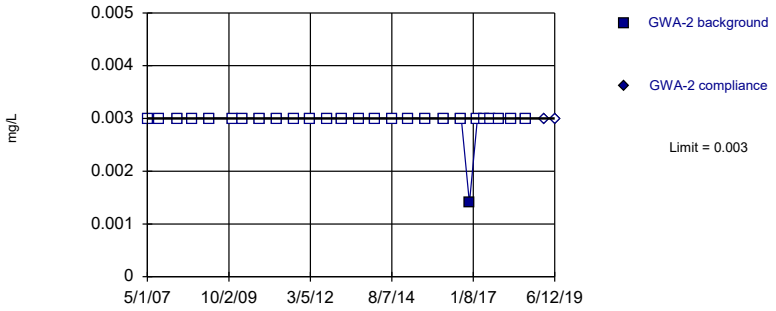
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 96.3% NDs. Well-constituent pair annual alpha = 0.004998. Individual comparison alpha = 0.002502 (1 of 2).

Constituent: Antimony Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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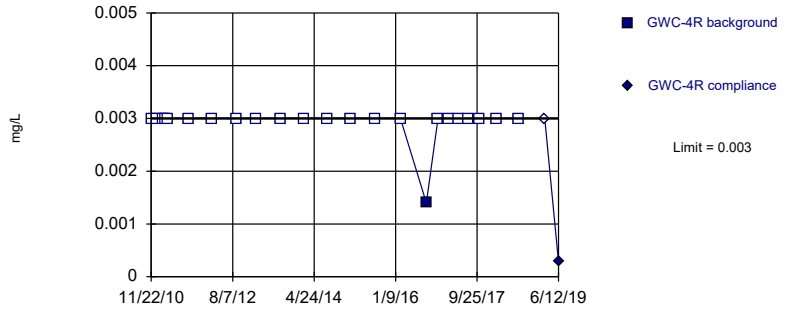
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Antimony Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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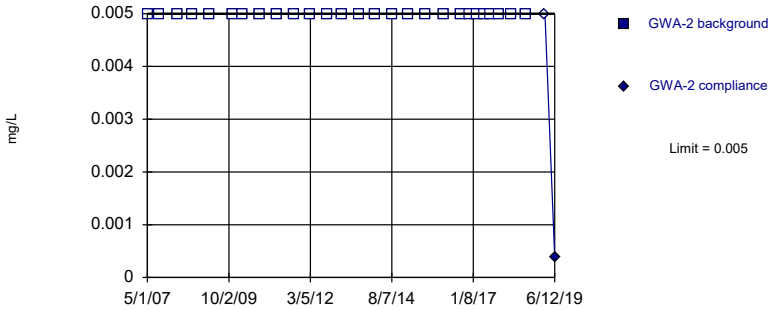
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



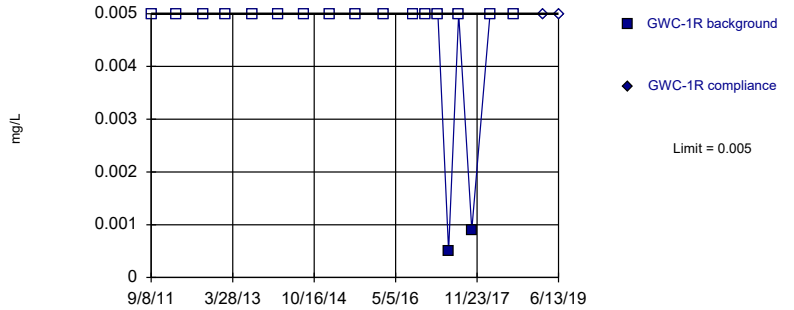
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 27) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.004998. Individual comparison alpha = 0.002502 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



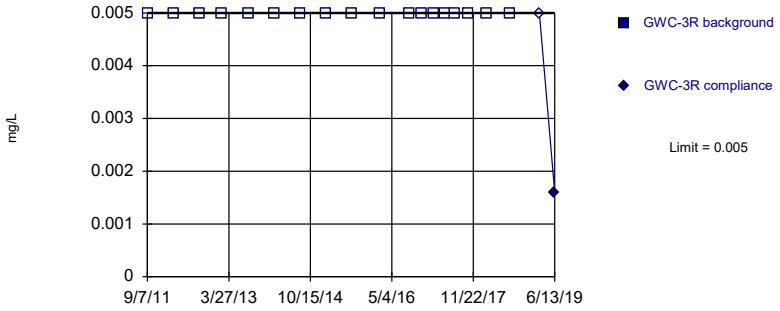
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



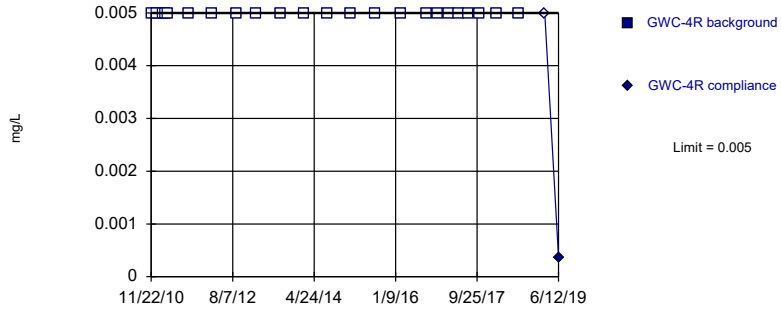
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 18) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



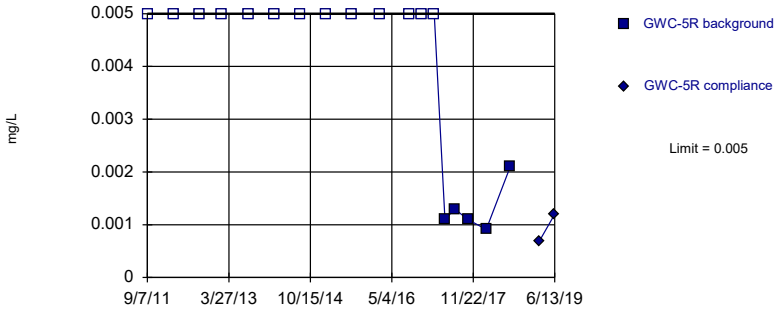
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 23) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



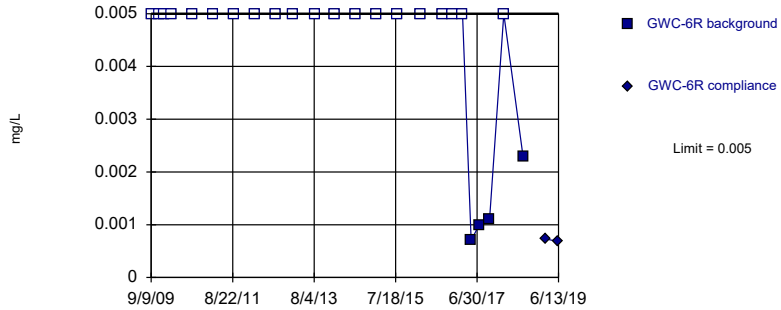
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 72.22% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



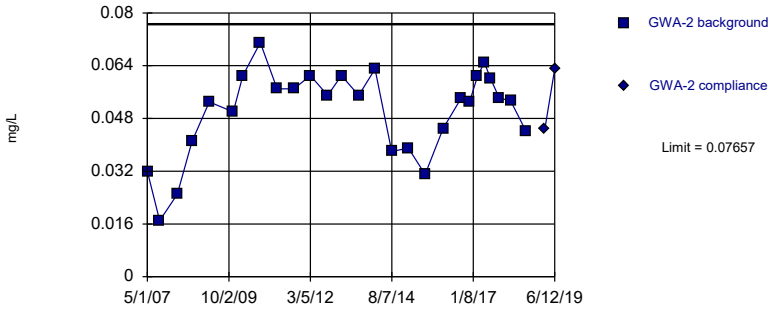
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.006238. Individual comparison alpha = 0.003124 (1 of 2).

Constituent: Arsenic Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.05023, Std. Dev.=0.01305, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.924, critical = 0.894. Kappa = 2.018 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Barium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

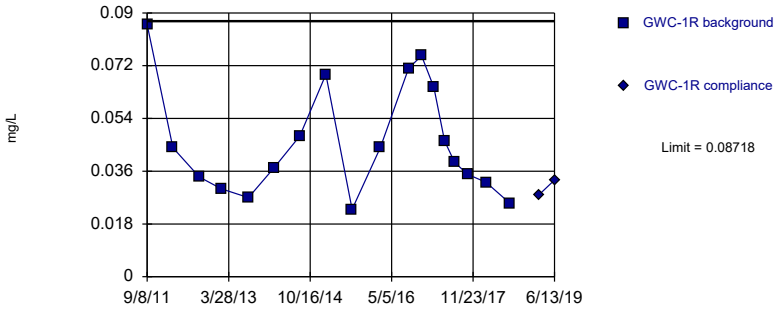
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.04614, Std. Dev.=0.01903, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9026, critical = 0.858. Kappa = 2.157 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Barium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

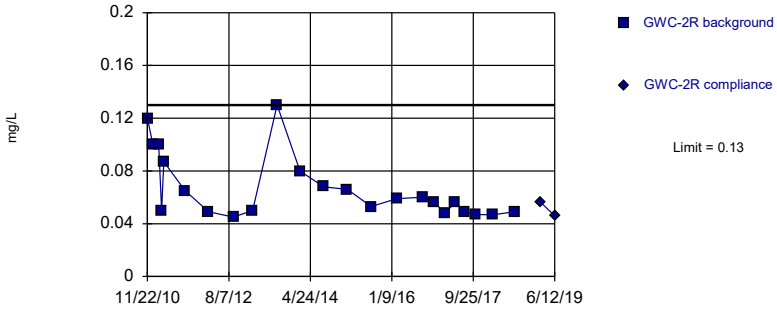
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 23 background values. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Barium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

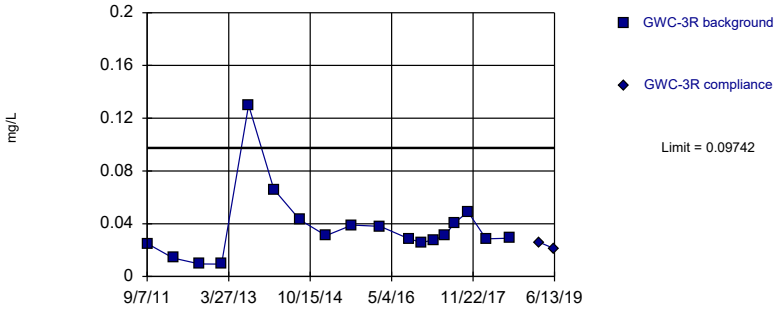
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.1832, Std. Dev.=0.05976, n=18. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8697, critical = 0.858. Kappa = 2.157 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

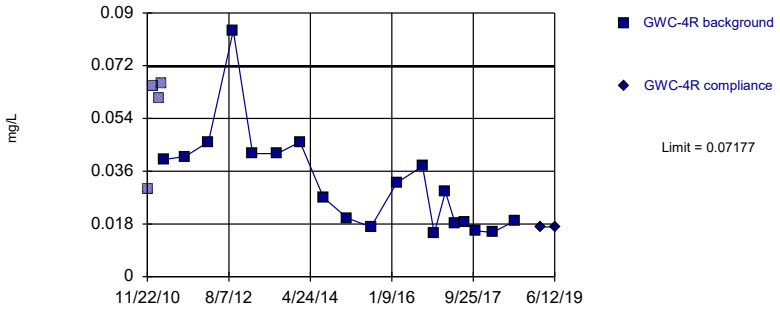
Constituent: Barium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.1732, Std. Dev.=0.04443, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8913, critical = 0.863. Kappa = 2.132 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

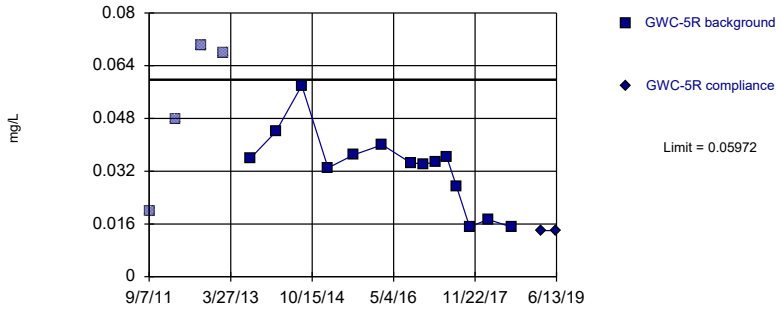
Constituent: Barium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.03304, Std. Dev.=0.01162, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.911, critical = 0.825. Kappa = 2.295 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

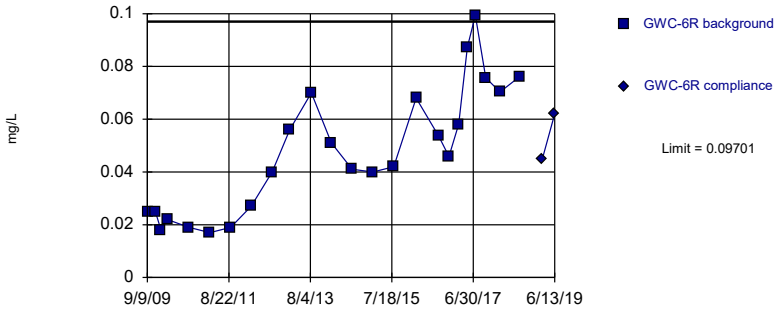
Constituent: Barium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.04776, Std. Dev.=0.02401, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9379, critical = 0.884. Kappa = 2.051 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Barium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

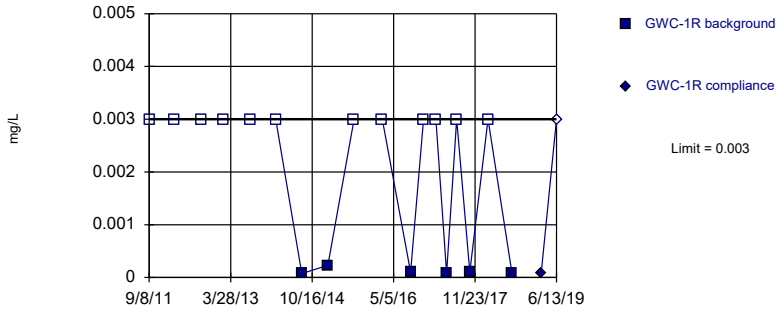
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Beryllium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

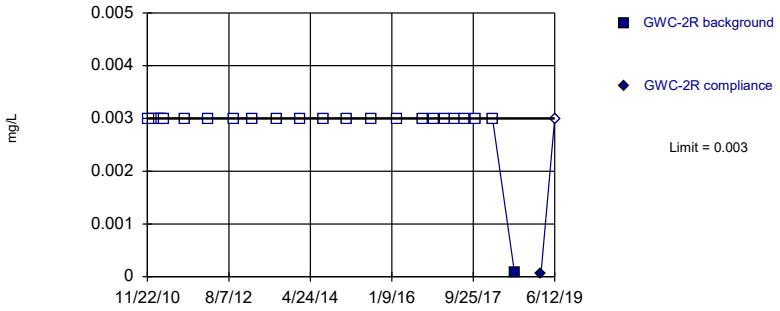
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Beryllium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

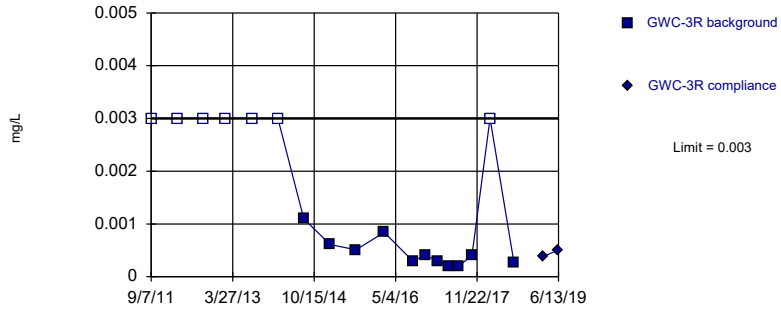
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 38.89% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Beryllium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

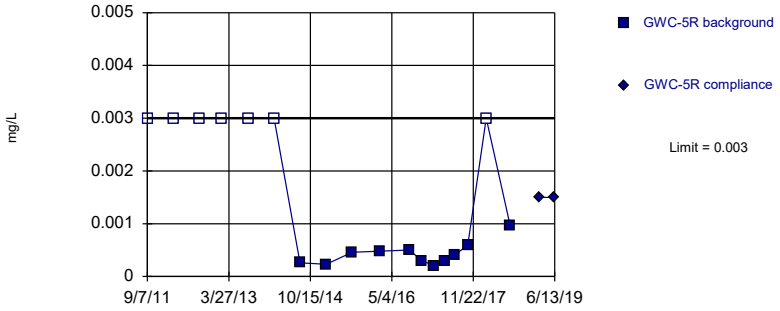
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 38.89% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Beryllium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

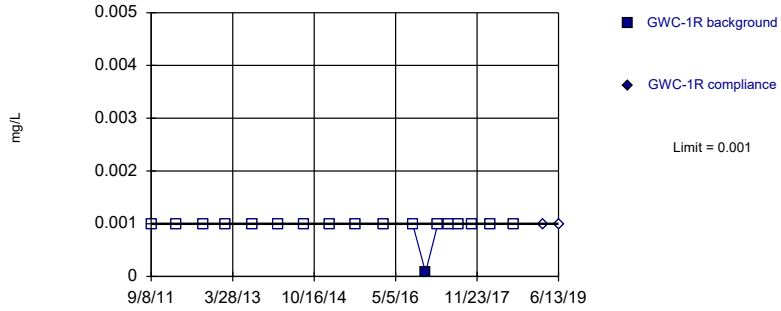
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 94.44% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

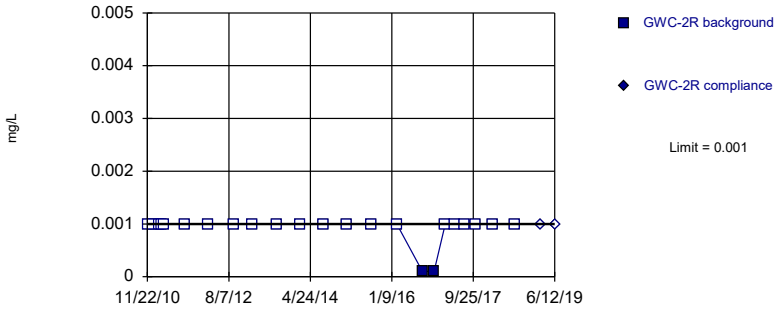
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

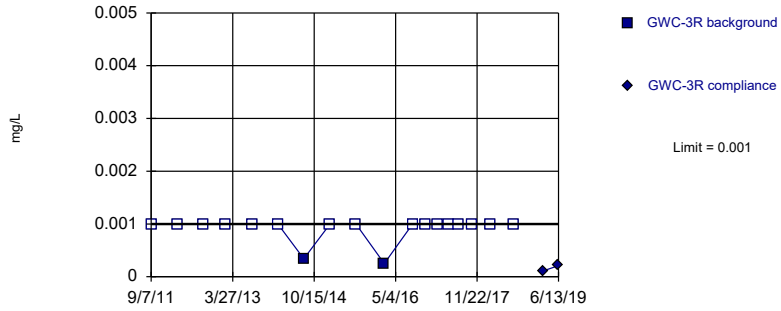
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

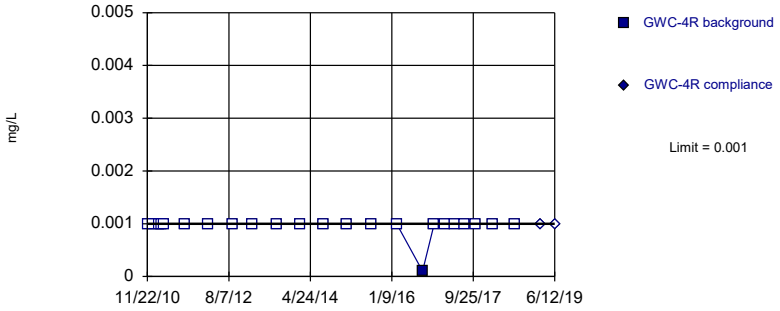
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Cadmium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

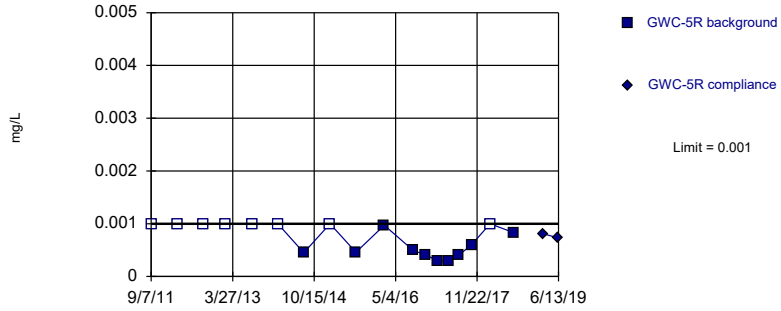
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 44.44% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

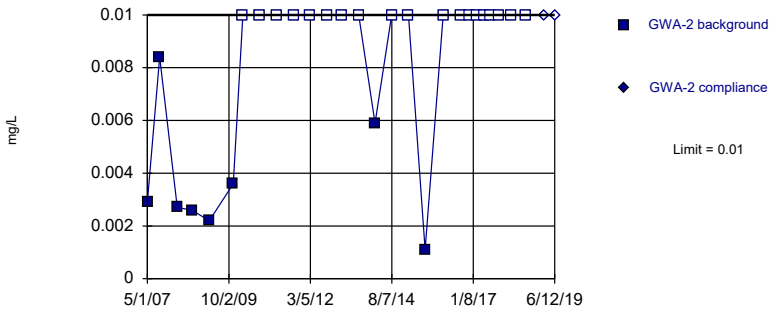
Constituent: Cadmium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



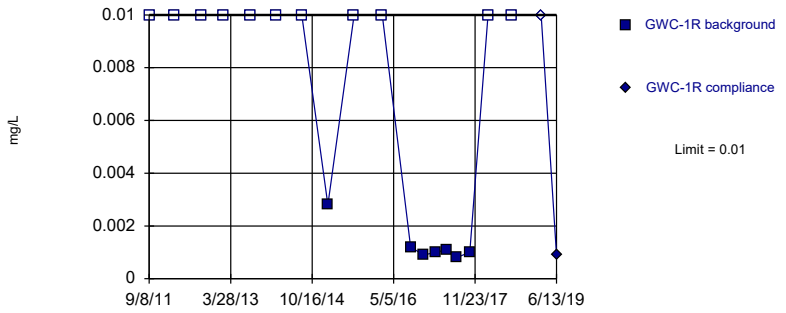
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 70.37% NDs. Well-constituent pair annual alpha = 0.004998. Individual comparison alpha = 0.002502 (1 of 2).

Constituent: Chromium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



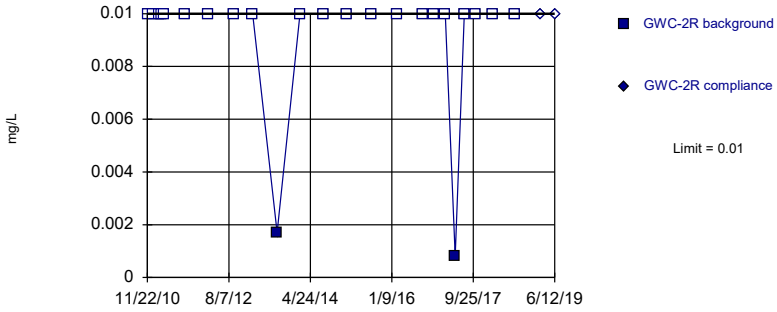
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 61.11% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Chromium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



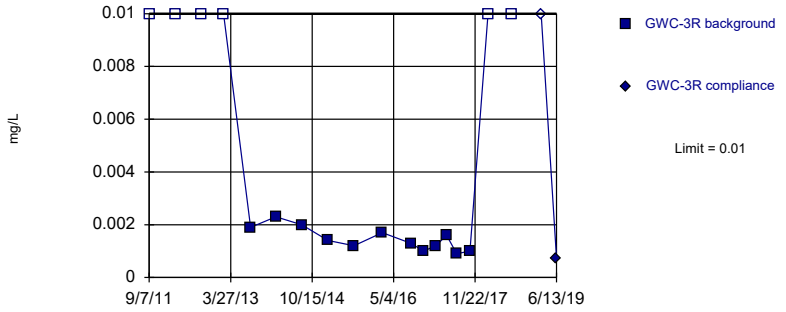
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Chromium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



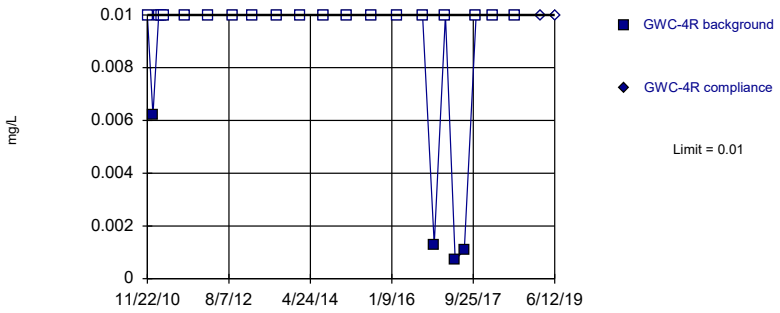
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Chromium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



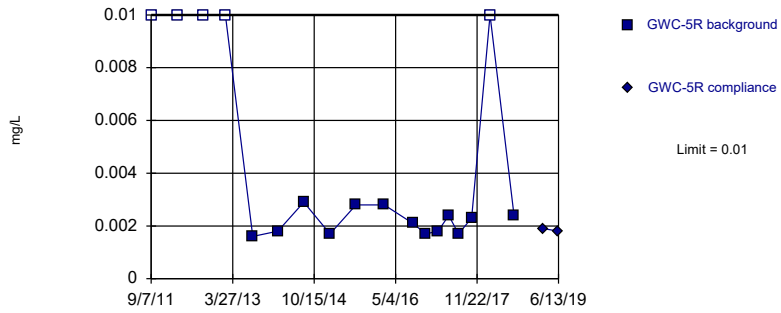
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 82.61% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Chromium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



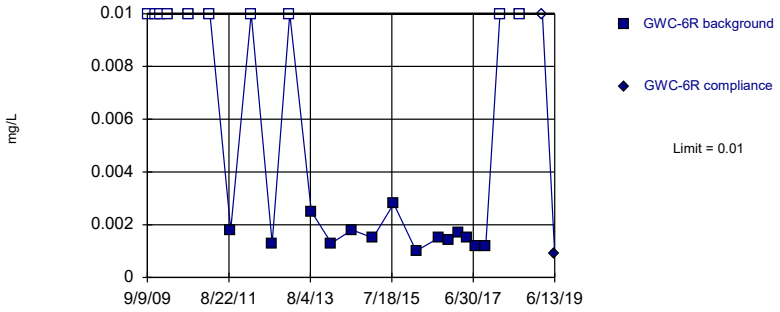
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 27.78% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Chromium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



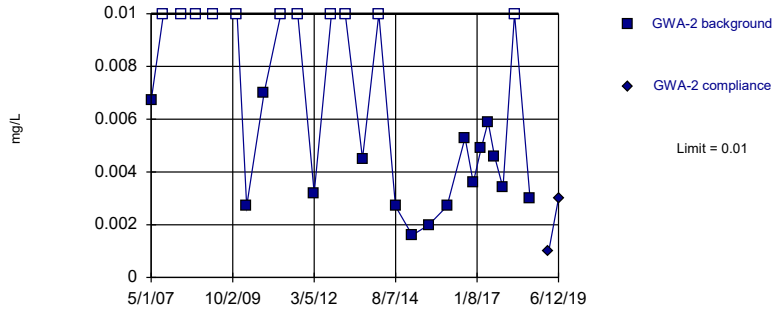
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 24 background values. 41.67% NDs. Well-constituent pair annual alpha = 0.006238. Individual comparison alpha = 0.003124 (1 of 2).

Constituent: Chromium Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. 40.74% NDs. Well-constituent pair annual alpha = 0.004998. Individual comparison alpha = 0.002502 (1 of 2).

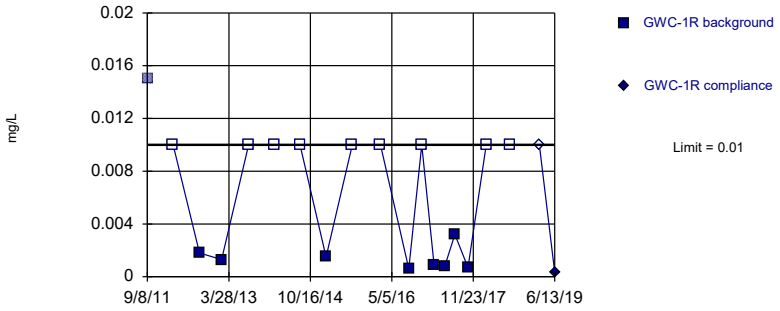
Constituent: Cobalt Analysis Run 8/27/2019 1:47 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 17 background values. 52.94% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005914 (1 of 2).

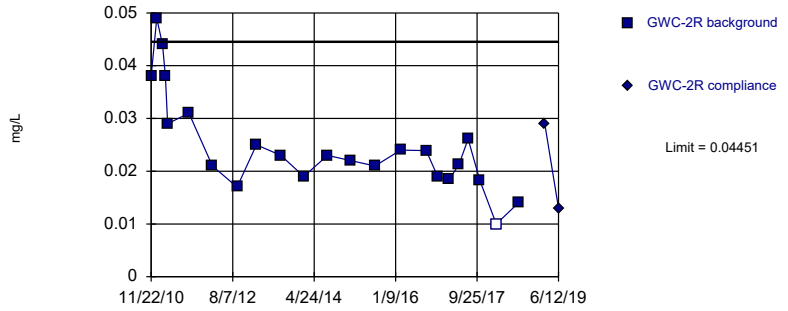
Constituent: Cobalt Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.02499, Std. Dev.=0.009454, n=23, 4.348% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8987, critical = 0.881. Kappa = 2.065 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

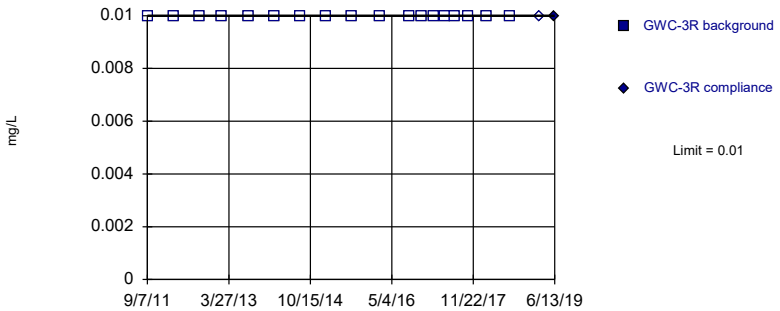
Constituent: Cobalt Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 18) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

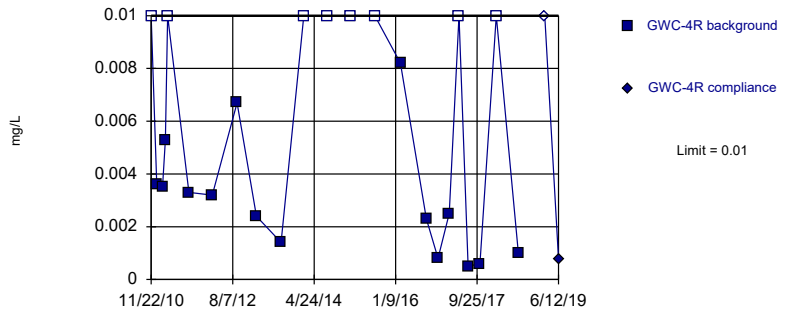
Constituent: Cobalt Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 23 background values. 34.78% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

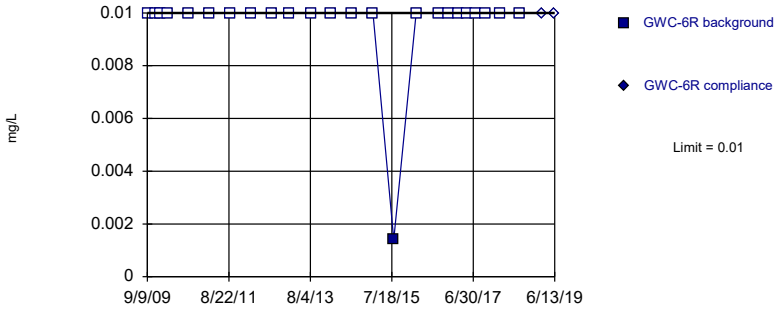
Constituent: Cobalt Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 95.83% NDs. Well-constituent pair annual alpha = 0.006238. Individual comparison alpha = 0.003124 (1 of 2).

Constituent: Cobalt Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

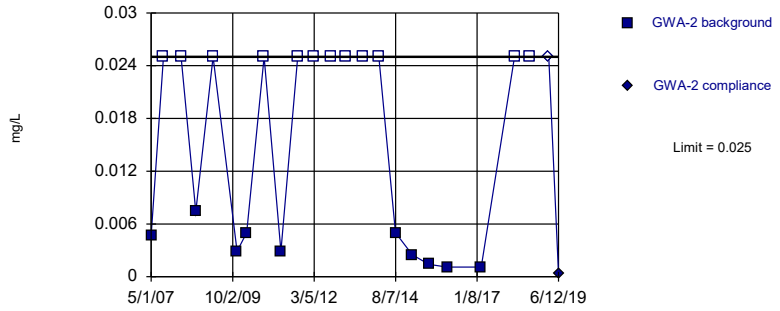
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 54.55% NDs. Well-constituent pair annual alpha = 0.007401. Individual comparison alpha = 0.003707 (1 of 2).

Constituent: Copper Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

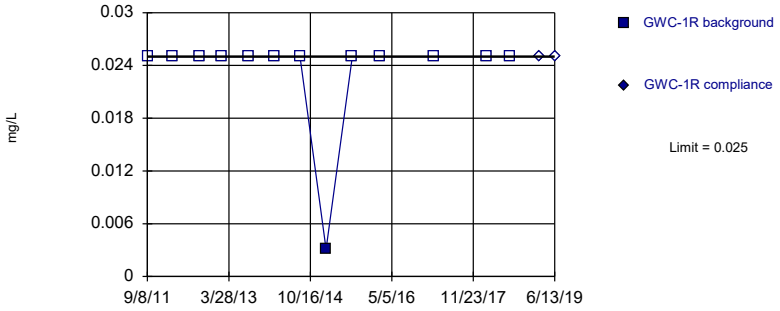
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Copper Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

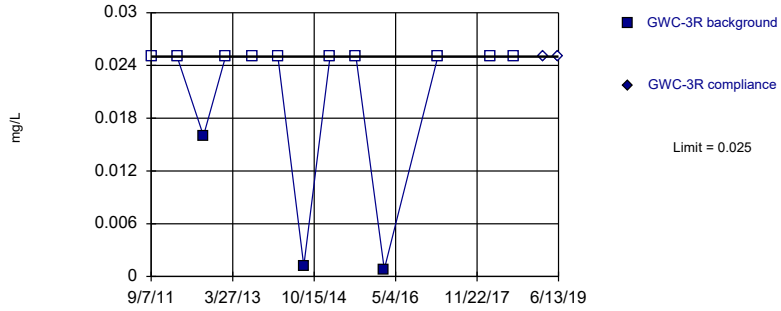
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 76.92% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Copper Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

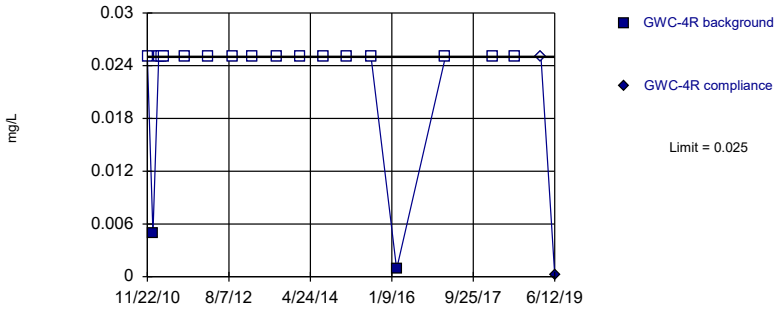
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Copper Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

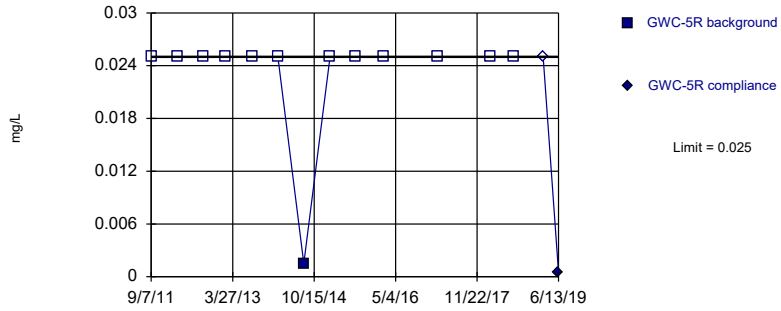
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 92.31% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Copper Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

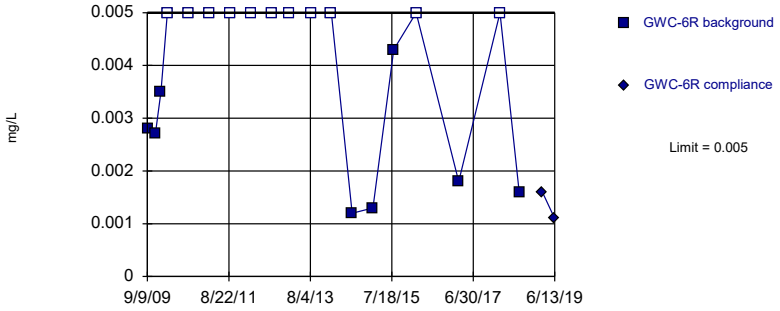
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 57.89% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

Constituent: Copper Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

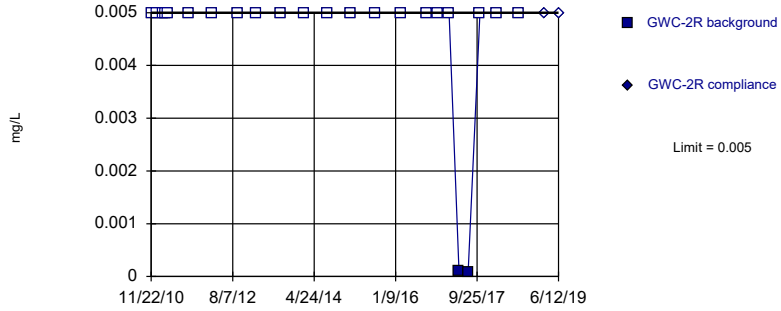
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 91.3% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

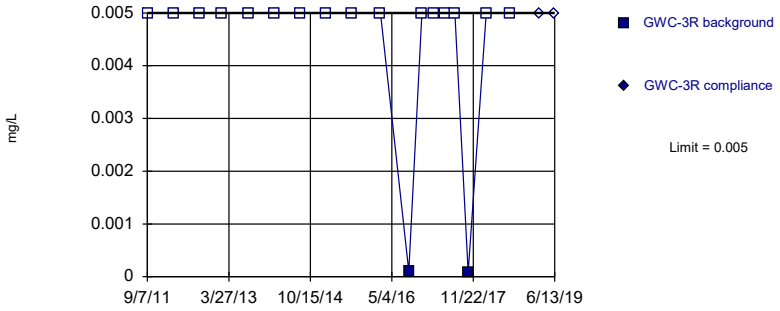
Constituent: Lead Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



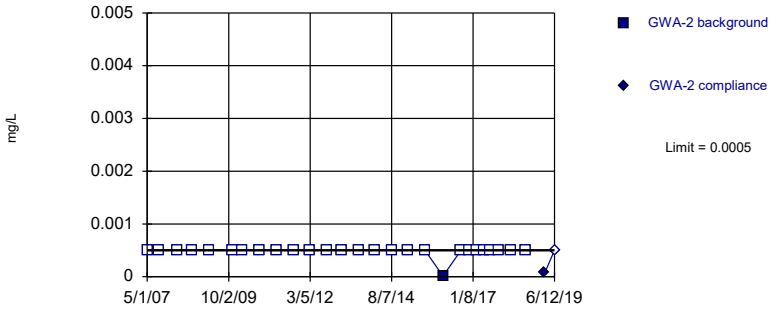
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 88.89% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Lead Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



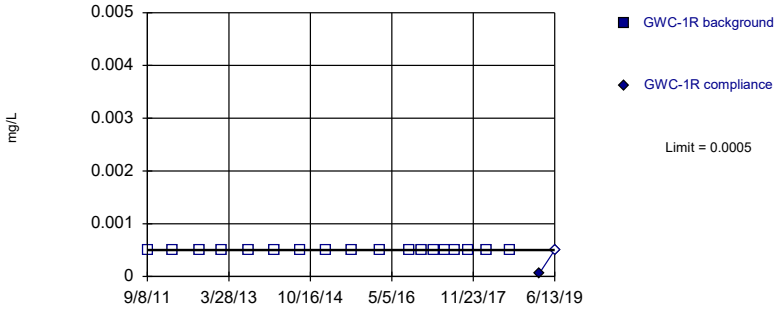
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 27 background values. 96.3% NDs. Well-constituent pair annual alpha = 0.004998. Individual comparison alpha = 0.002502 (1 of 2).

Constituent: Mercury Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



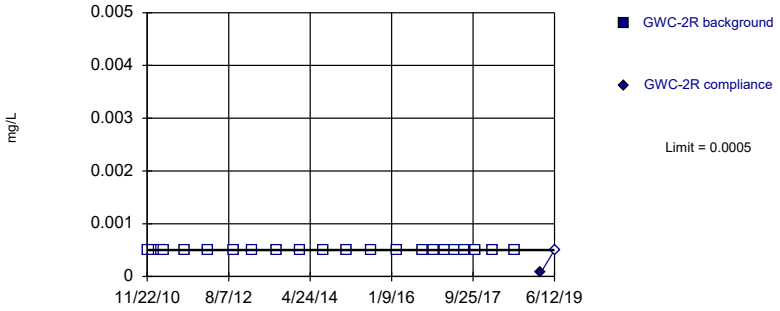
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 18) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Mercury Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



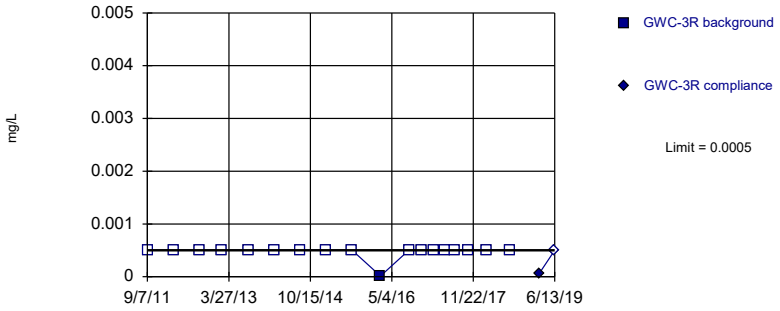
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 23) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Mercury Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



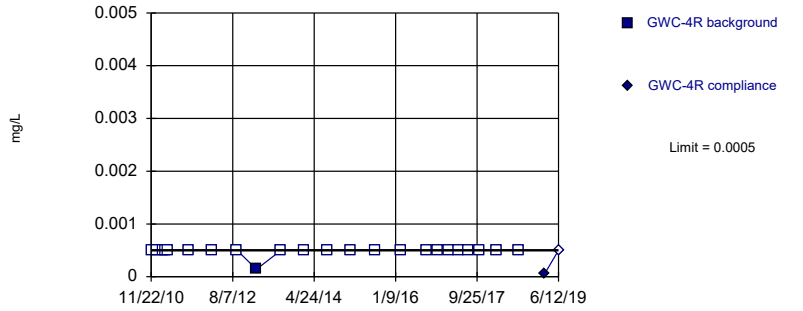
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 94.44% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Mercury Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



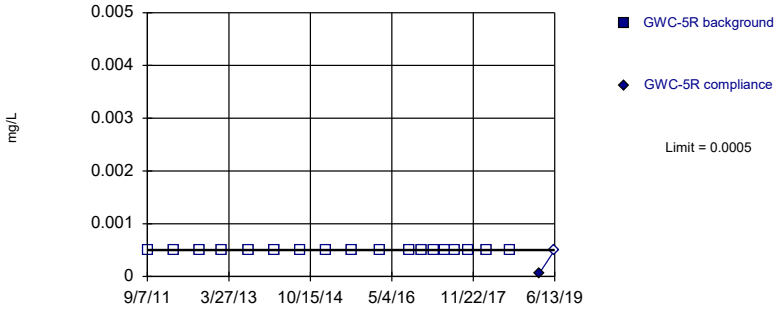
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 95.65% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Mercury Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



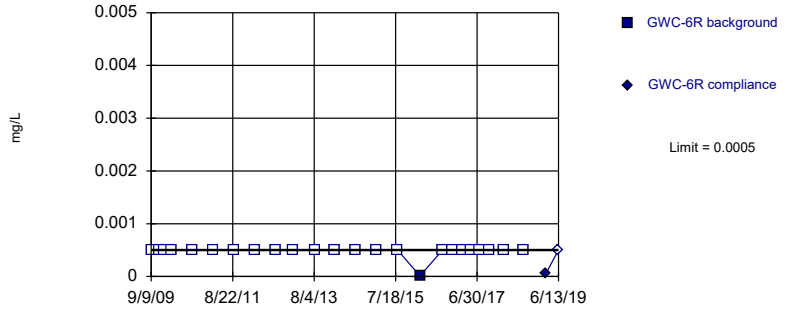
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 18) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Mercury Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 95.83% NDs. Well-constituent pair annual alpha = 0.006238. Individual comparison alpha = 0.003124 (1 of 2).

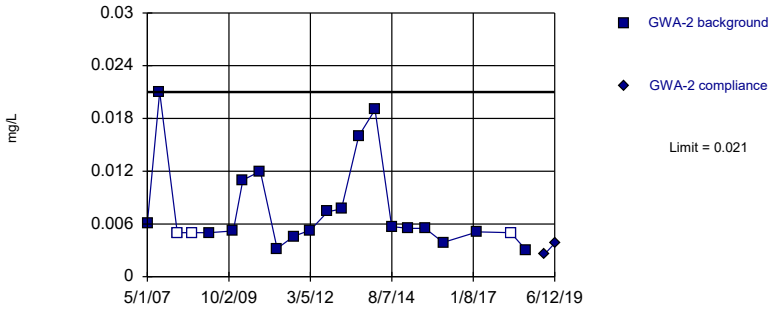
Constituent: Mercury Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 22 background values. 13.64% NDs. Well-constituent pair annual alpha = 0.007401. Individual comparison alpha = 0.003707 (1 of 2).

Constituent: Nickel Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

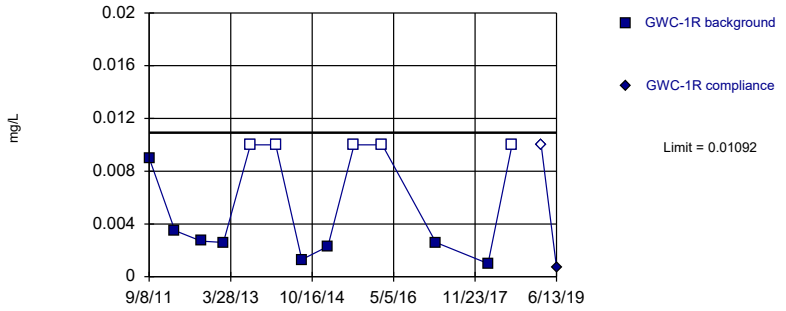
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-6.05, Std. Dev.=0.655, n=13, 38.46% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8323, critical = 0.814. Kappa = 2.34 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Nickel Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

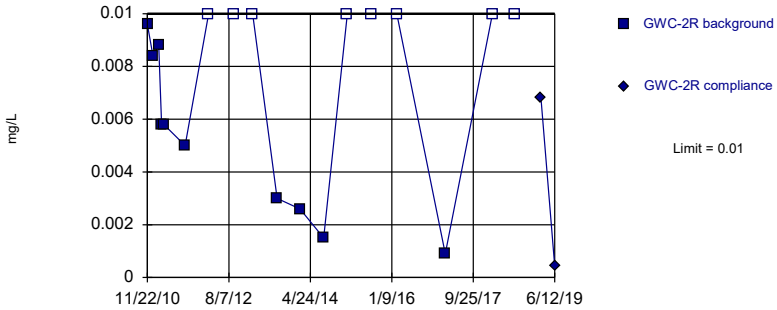
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 18 background values. 44.44% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Nickel Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

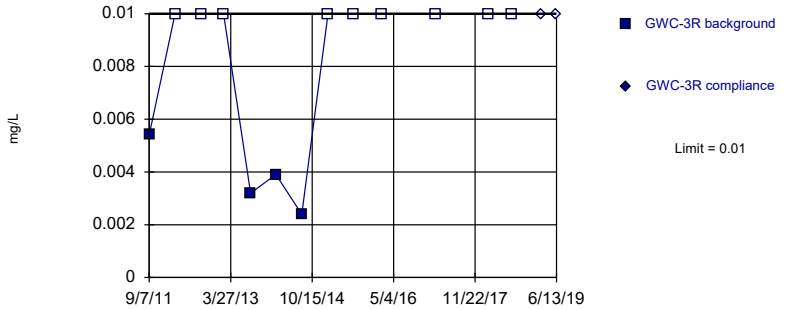
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Nickel Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

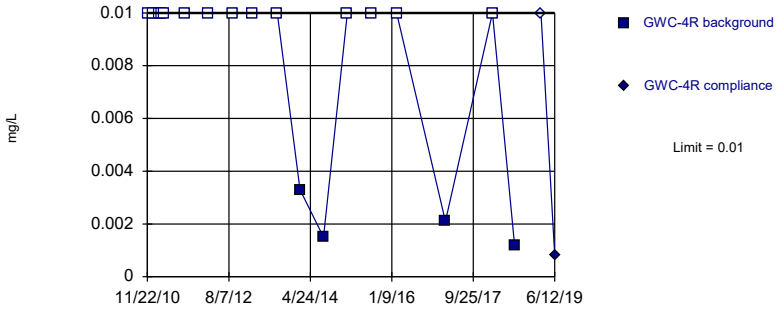
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 77.78% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

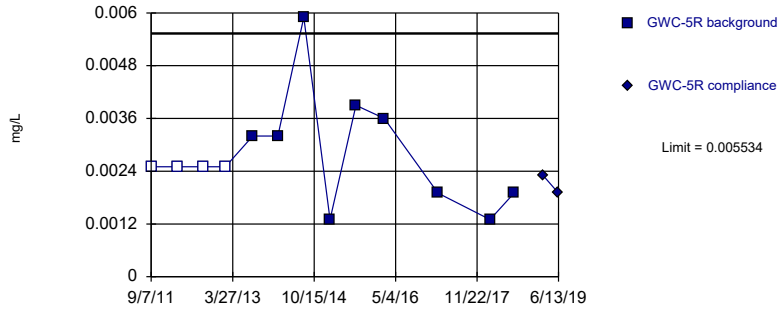
Constituent: Nickel Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.002281, Std. Dev.=0.00139, n=13, 30.77% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8933, critical = 0.814. Kappa = 2.34 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

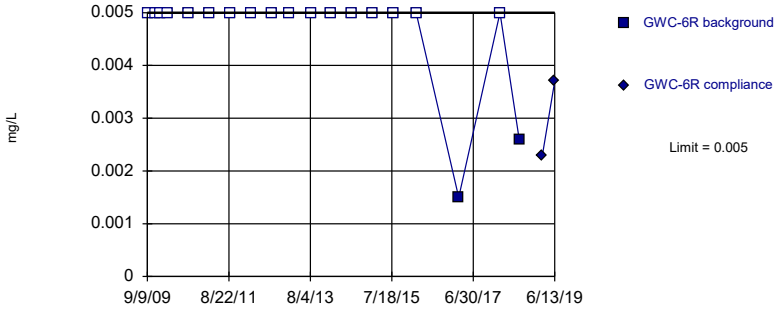
Constituent: Nickel Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 89.47% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

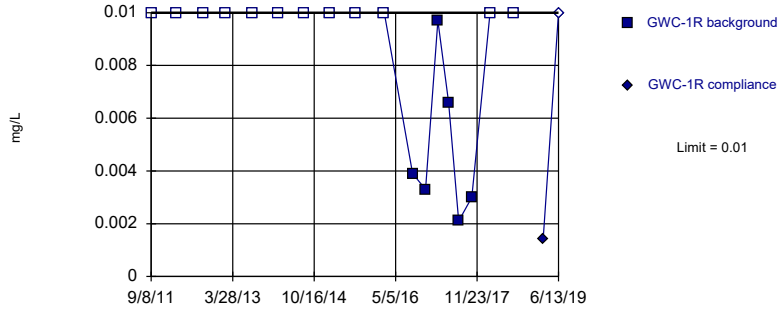
Constituent: Nickel Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 66.67% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

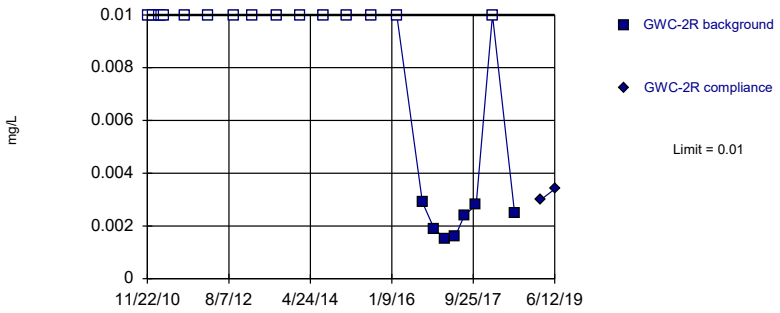
Constituent: Selenium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 69.57% NDs. Well-constituent pair annual alpha = 0.006819. Individual comparison alpha = 0.003415 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

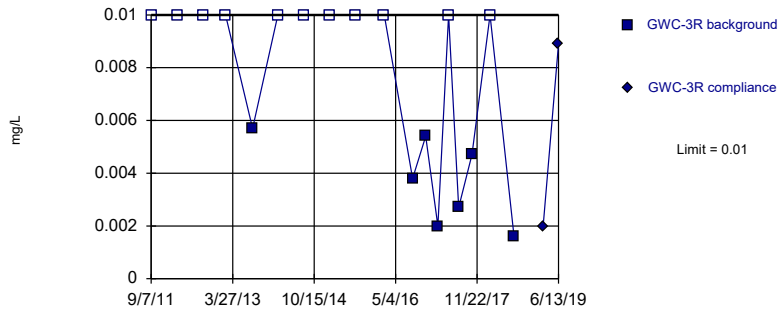
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 18 background values. 61.11% NDs. Well-constituent pair annual alpha = 0.01072. Individual comparison alpha = 0.005373 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

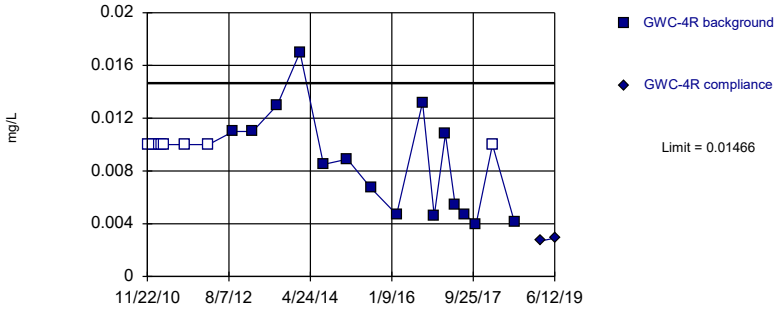
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.007285, Std. Dev.=0.003569, n=23, 34.78% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9085, critical = 0.881. Kappa = 2.065 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Selenium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

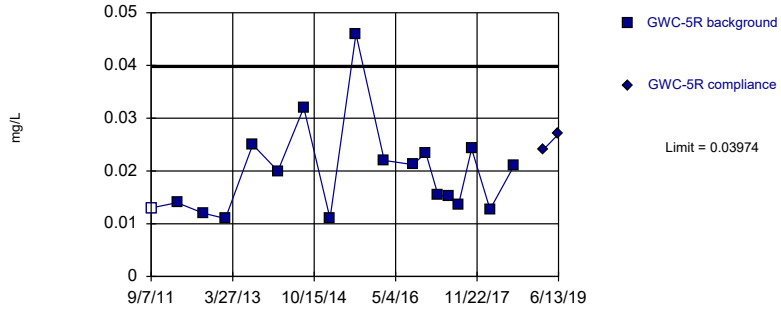
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.1371, Std. Dev.=0.02884, n=18, 5.556% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8922, critical = 0.858. Kappa = 2.157 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

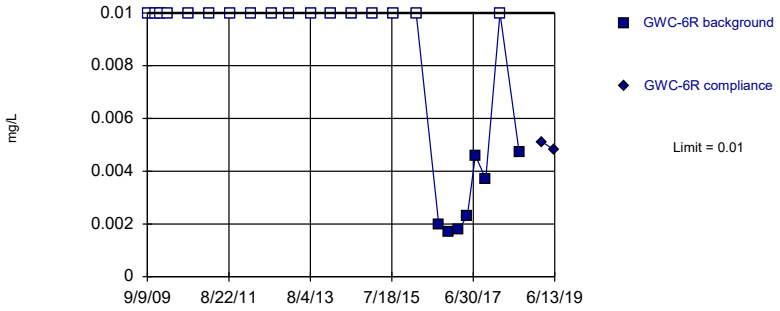
Constituent: Selenium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



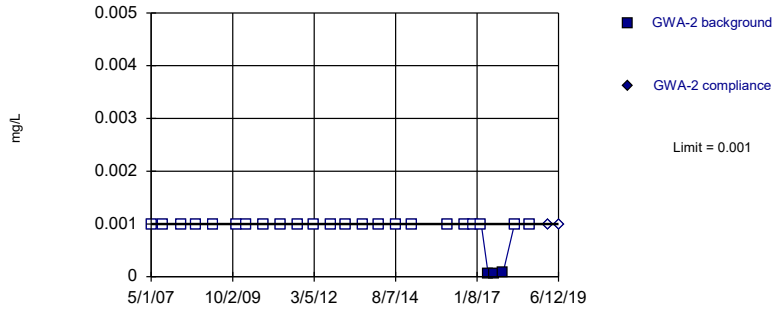
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 70.83% NDs. Well-constituent pair annual alpha = 0.006238. Individual comparison alpha = 0.003124 (1 of 2).

Constituent: Selenium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



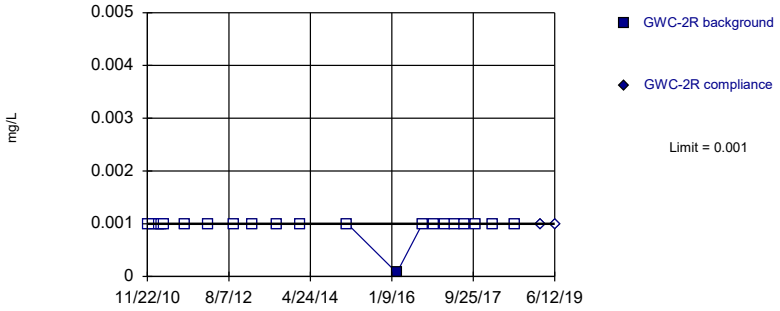
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 26 background values. 88.46% NDs. Well-constituent pair annual alpha = 0.005327. Individual comparison alpha = 0.002667 (1 of 2).

Constituent: Thallium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



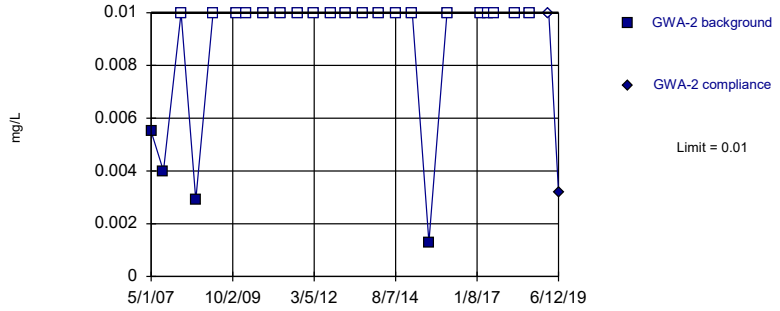
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 21 background values. 95.24% NDs. Well-constituent pair annual alpha = 0.007982. Individual comparison alpha = 0.003999 (1 of 2).

Constituent: Thallium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 24 background values. 83.33% NDs. Well-constituent pair annual alpha = 0.006238. Individual comparison alpha = 0.003124 (1 of 2).

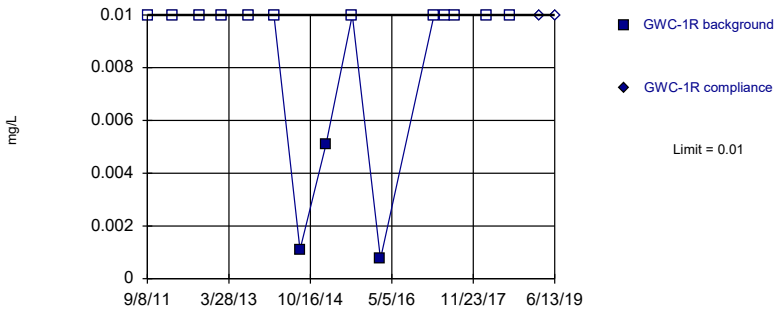
Constituent: Vanadium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 80% NDs. Well-constituent pair annual alpha = 0.01501. Individual comparison alpha = 0.007533 (1 of 2).

Constituent: Vanadium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

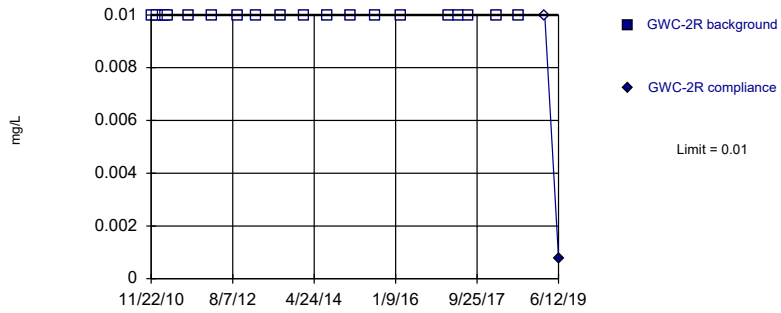
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 20) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.008564. Individual comparison alpha = 0.004291 (1 of 2).

Constituent: Vanadium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

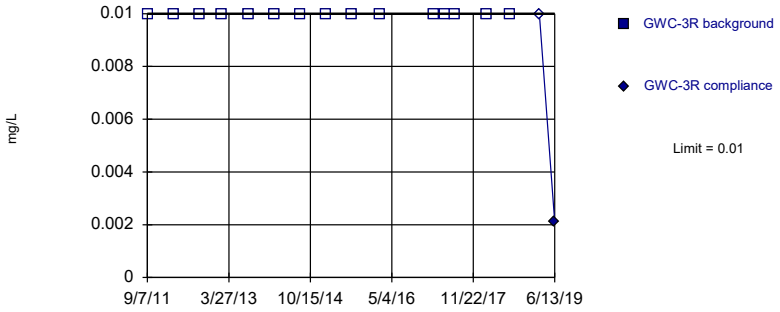
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 15) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.01501. Individual comparison alpha = 0.007533 (1 of 2).

Constituent: Vanadium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

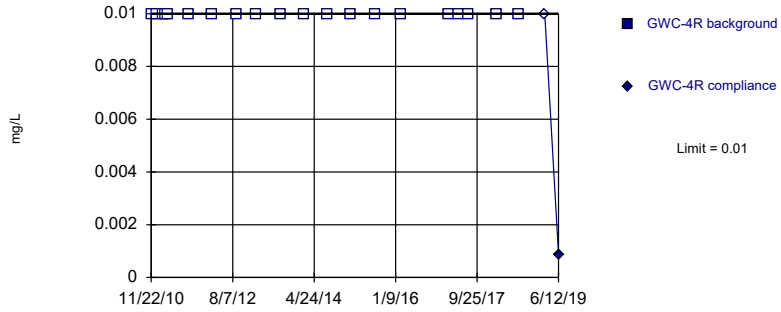
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 20) were censored; limit is most recent reporting limit. Well-constituent pair annual alpha = 0.008564. Individual comparison alpha = 0.004291 (1 of 2).

Constituent: Vanadium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

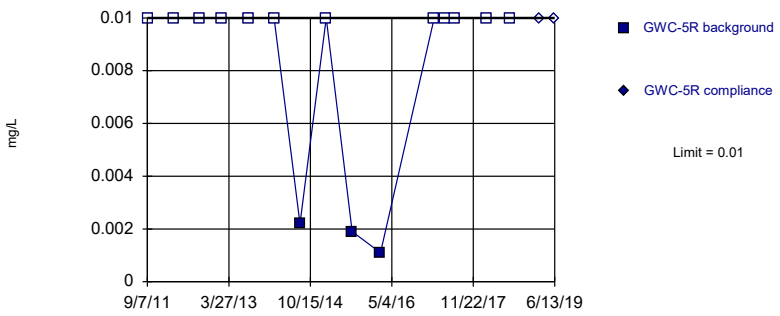
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 15 background values. 80% NDs. Well-constituent pair annual alpha = 0.01501. Individual comparison alpha = 0.007533 (1 of 2).

Constituent: Vanadium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

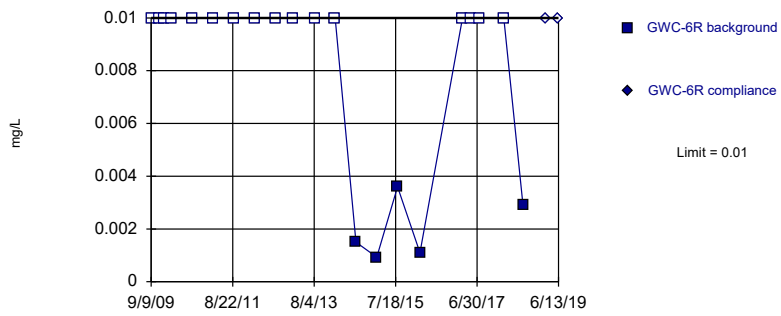
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 21 background values. 76.19% NDs. Well-constituent pair annual alpha = 0.007982. Individual comparison alpha = 0.003999 (1 of 2).

Constituent: Vanadium Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

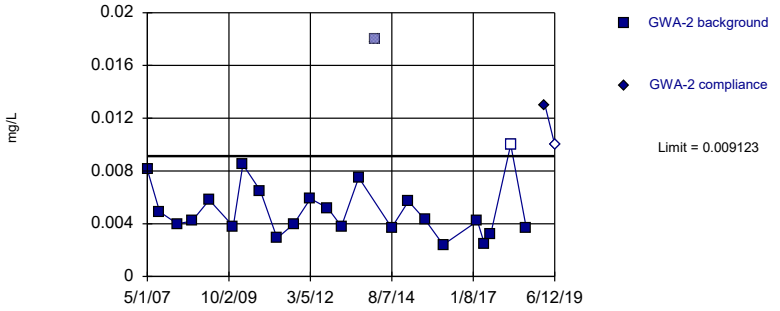
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.004991, Std. Dev.=0.002, n=23, 4.348% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9103, critical = 0.881. Kappa = 2.065 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Zinc Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

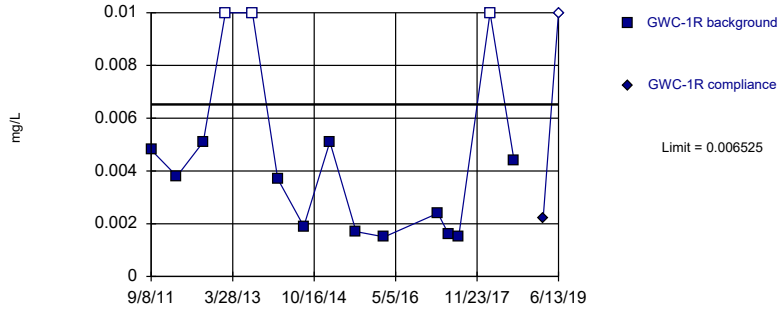
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.05264, Std. Dev.=0.0125, n=15, 20% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8675, critical = 0.835. Kappa = 2.25 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Zinc Analysis Run 8/27/2019 1:48 PM View: Intrawell PL

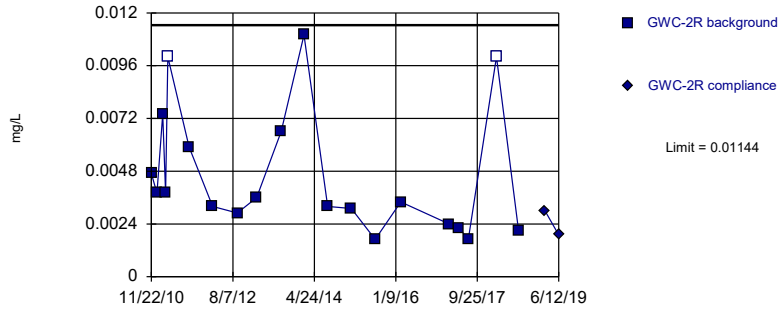
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.0653, Std. Dev.=0.01977, n=20, 10% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8938, critical = 0.868. Kappa = 2.108 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

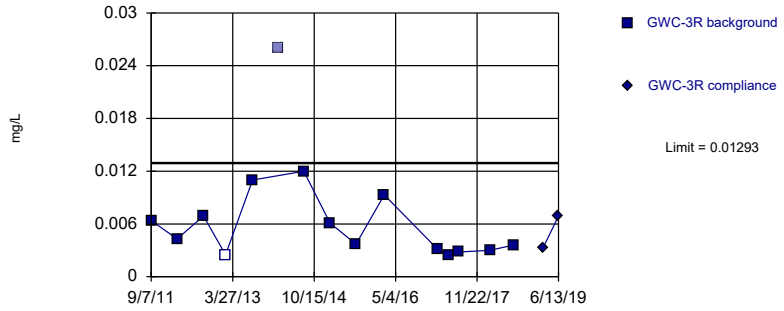
Constituent: Zinc Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.005514, Std. Dev.=0.00323, n=14, 7.143% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8465, critical = 0.825. Kappa = 2.295 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

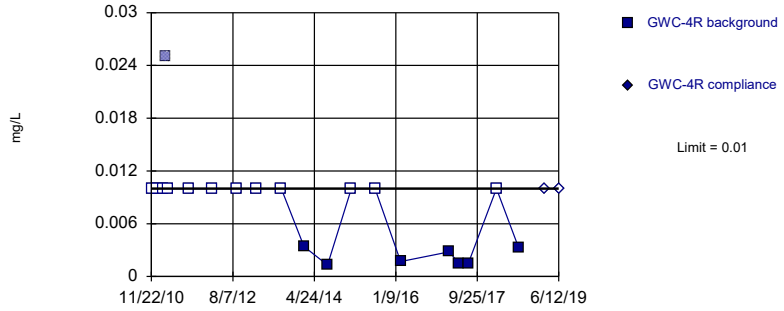
Constituent: Zinc Analysis Run 8/27/2019 1:48 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 19 background values. 63.16% NDs. Well-constituent pair annual alpha = 0.009641. Individual comparison alpha = 0.004832 (1 of 2).

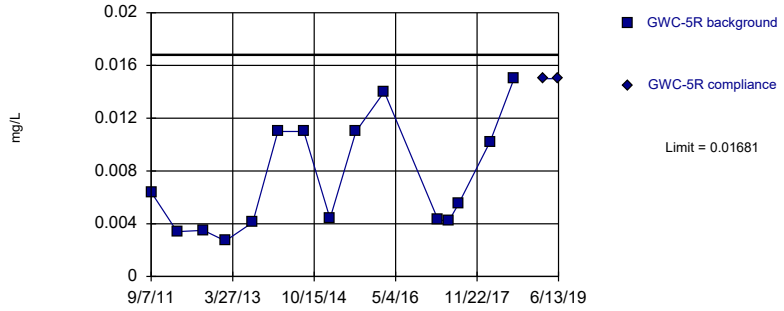
Constituent: Zinc Analysis Run 8/27/2019 1:49 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.00738, Std. Dev.=0.004189, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8595, critical = 0.835. Kappa = 2.25 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

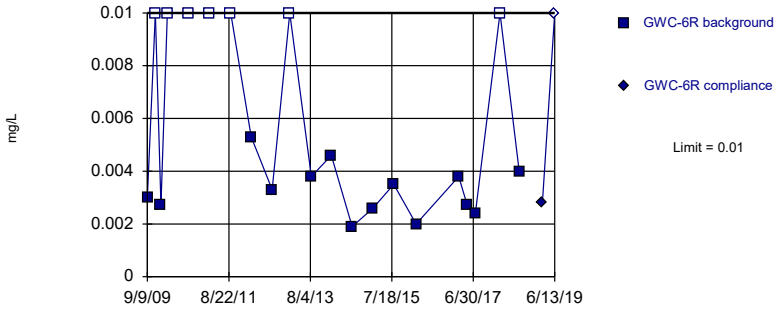
Constituent: Zinc Analysis Run 8/27/2019 1:49 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 21 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.007982. Individual comparison alpha = 0.003999 (1 of 2).

Constituent: Zinc Analysis Run 8/27/2019 1:49 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Prediction Limit

Constituent: Antimony, Arsenic Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2	GWC-4R	GWC-4R	GWA-2	GWA-2	GWC-1R	GWC-1R
5/1/2007	<0.003				<0.005			
9/11/2007	<0.003				<0.005			
3/20/2008	<0.003				<0.005			
8/27/2008	<0.003				<0.005			
3/3/2009	<0.003				<0.005			
11/18/2009	<0.003				<0.005			
3/3/2010	<0.003				<0.005			
9/8/2010	<0.003				<0.005			
11/22/2010			<0.003					
1/4/2011			<0.003					
2/17/2011			<0.003					
3/10/2011	<0.003				<0.005			
3/11/2011			<0.003					
3/28/2011			<0.003					
9/7/2011			<0.003					
9/8/2011	<0.003				<0.005		<0.005	
3/4/2012			<0.003					
3/5/2012	<0.003				<0.005		<0.005	
9/5/2012							<0.005	
9/10/2012	<0.003		<0.003		<0.005			
2/5/2013							<0.005	
2/6/2013	<0.003		<0.003		<0.005			
8/12/2013	<0.003				<0.005			
8/13/2013							<0.005	
8/14/2013			<0.003					
2/4/2014			<0.003				<0.005	
2/5/2014	<0.003				<0.005			
8/4/2014			<0.003					
8/5/2014	<0.003				<0.005		<0.005	
2/2/2015			<0.003				<0.005	
2/4/2015	<0.003				<0.005			
8/3/2015	<0.003		<0.003 (D)		<0.005			
8/4/2015							<0.005 (D)	
2/16/2016	<0.003		<0.003		<0.005		<0.005	
8/31/2016	<0.003				<0.005		<0.005	
9/1/2016			0.0014 (J)					
11/28/2016	0.0014 (J)				<0.005			
11/29/2016							<0.005	
11/30/2016			<0.003					
2/22/2017	<0.003				<0.005			
2/23/2017							<0.005	
2/24/2017			<0.003					
5/8/2017	<0.003				<0.005			
5/9/2017							0.0005 (J)	
5/10/2017			<0.003					
7/17/2017	<0.003				<0.005			
7/18/2017			<0.003				<0.005	
10/16/2017	<0.003				<0.005			
10/17/2017			<0.003				0.0009 (J)	
2/19/2018	<0.003				<0.005			
2/20/2018			<0.003					
2/21/2018							<0.005	

Prediction Limit

Constituent: Antimony, Arsenic Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2	GWC-4R	GWC-4R	GWA-2	GWA-2	GWC-1R	GWC-1R
8/6/2018	<0.003				<0.005			
8/7/2018							<0.005	
8/8/2018			<0.003					
2/25/2019		<0.003				<0.005		
2/26/2019				<0.003				<0.005
6/12/2019		<0.003		0.00028 (J)		0.00038 (J)		
6/13/2019								<0.005

Prediction Limit

Constituent: Arsenic Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R
9/9/2009							<0.005	
11/18/2009							<0.005	
1/5/2010							<0.005	
3/3/2010							<0.005	
9/7/2010							<0.005	
11/22/2010			<0.005					
1/4/2011			<0.005					
2/17/2011			<0.005					
3/10/2011							<0.005	
3/11/2011			<0.005					
3/28/2011			<0.005					
9/7/2011	<0.005		<0.005		<0.005			
9/8/2011							<0.005	
3/4/2012			<0.005					
3/5/2012	<0.005				<0.005		<0.005	
9/5/2012	<0.005				<0.005		<0.005	
9/10/2012			<0.005					
2/5/2013					<0.005		<0.005	
2/6/2013	<0.005		<0.005					
8/13/2013	<0.005						<0.005	
8/14/2013			<0.005		<0.005			
2/4/2014			<0.005				<0.005	
2/5/2014	<0.005				<0.005			
8/4/2014	<0.005		<0.005		<0.005			
8/5/2014							<0.005	
2/2/2015			<0.005					
2/3/2015	<0.005				<0.005		<0.005	
8/3/2015	<0.005 (D)		<0.005 (D)		<0.005 (D)			
8/4/2015							<0.005	
2/16/2016	<0.005		<0.005		<0.005		<0.005	
8/31/2016	<0.005							
9/1/2016			<0.005		<0.005		<0.005	
11/29/2016							<0.005	
11/30/2016	<0.005		<0.005					
12/1/2016					<0.005			
2/23/2017	<0.005						<0.005	
2/24/2017			<0.005		<0.005			
5/9/2017	<0.005							
5/10/2017			<0.005		0.0011 (J)		0.0007 (J)	
7/17/2017					0.0013 (J)			
7/18/2017	<0.005		<0.005				0.001 (J)	
10/16/2017					0.0011 (J)			
10/17/2017			<0.005					
10/18/2017	<0.005						0.0011 (J)	
2/19/2018							<0.005	
2/20/2018			<0.005					
2/21/2018	<0.005				0.00091 (J)			
8/6/2018							0.0023 (J)	
8/7/2018	<0.005				0.0021 (J)			
8/8/2018			<0.005					
2/25/2019								0.00073 (J)
2/26/2019		<0.005		<0.005		0.00069 (J)		

Prediction Limit

Constituent: Arsenic Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R
6/12/2019				0.00037 (J)				
6/13/2019		0.0016 (J)				0.0012 (J)		0.00068 (J)

Prediction Limit

Constituent: Barium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R
5/1/2007	0.032							
9/11/2007	0.017							
3/20/2008	0.025							
8/27/2008	0.041							
3/3/2009	0.053							
11/18/2009	0.05							
3/3/2010	0.061							
9/8/2010	0.071							
11/22/2010					0.12			
1/4/2011					0.1			
2/17/2011					0.1			
3/10/2011	0.057							
3/11/2011					0.05			
3/28/2011					0.087			
9/7/2011					0.065		0.025	
9/8/2011	0.057		0.086					
3/5/2012	0.061		0.044				0.014	
3/6/2012					0.049			
9/5/2012			0.034				0.0095	
9/10/2012	0.055							
9/11/2012					0.045			
2/5/2013			0.03					
2/6/2013	0.061				0.05		0.0094	
8/12/2013	0.055							
8/13/2013			0.027		0.13		0.13	
2/4/2014			0.037		0.08			
2/5/2014	0.063						0.066	
8/4/2014							0.043	
8/5/2014	0.038		0.048		0.068			
2/2/2015			0.069		0.066			
2/3/2015							0.031	
2/4/2015	0.039							
8/3/2015	0.031						0.039 (D)	
8/4/2015			0.023 (D)		0.053			
2/16/2016	0.045		0.044				0.038	
2/17/2016					0.059			
8/31/2016	0.0542		0.0711		0.0601		0.0286	
11/28/2016	0.0529				0.0562			
11/29/2016			0.0754					
11/30/2016							0.0258	
2/22/2017	0.0607				0.0481			
2/23/2017			0.0646				0.0278	
5/8/2017	0.065							
5/9/2017			0.0463				0.0308	
5/10/2017					0.0563			
7/17/2017	0.06							
7/18/2017			0.039		0.049		0.0407	
10/16/2017	0.0542							
10/17/2017			0.0349		0.047			
10/18/2017							0.049	
2/19/2018	0.0533							
2/20/2018					0.0467			

Prediction Limit

Constituent: Barium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R
2/21/2018			0.0322				0.0285	
8/6/2018	0.044							
8/7/2018			0.025				0.029	
8/8/2018					0.049			
2/25/2019		0.045						
2/26/2019				0.028		0.056		0.026
6/12/2019		0.063				0.046		
6/13/2019				0.033				0.021

Prediction Limit

Constituent: Barium, Beryllium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R	GWC-1R	GWC-1R
9/9/2009					0.025			
11/18/2009					0.025			
1/5/2010					0.018			
3/3/2010					0.022			
9/7/2010					0.019			
3/10/2011					0.017			
3/28/2011	0.04							
9/7/2011	0.041							
9/8/2011					0.019		<0.003	
3/4/2012	0.046							
3/5/2012					0.027		<0.003	
9/5/2012					0.04		<0.003	
9/10/2012	0.084							
2/5/2013					0.056		<0.003	
2/6/2013	0.042							
8/13/2013					0.07		<0.003	
8/14/2013	0.042		0.036					
2/4/2014	0.046				0.051		<0.003	
2/5/2014			0.044					
8/4/2014	0.027		0.058					
8/5/2014					0.041		7.5E-05 (J)	
2/2/2015	0.02						0.00023 (J)	
2/3/2015			0.033		0.04			
8/3/2015	0.017 (D)		0.037 (D)					
8/4/2015					0.042		<0.003 (D)	
2/16/2016	0.032		0.04		0.068		<0.003	
8/31/2016							0.0001 (J)	
9/1/2016	0.0377		0.0345		0.0536			
11/29/2016					0.0459		<0.003	
11/30/2016	0.0148							
12/1/2016			0.0342					
2/23/2017					0.0581		<0.003	
2/24/2017	0.029		0.0347					
5/9/2017							8E-05 (J)	
5/10/2017	0.0182		0.0363		0.0873			
7/17/2017			0.0274					
7/18/2017	0.0187				0.0994		<0.003	
10/16/2017			0.0151					
10/17/2017	0.0157						0.0001 (J)	
10/18/2017					0.0757			
2/19/2018					0.0703			
2/20/2018	0.0151							
2/21/2018			0.0174				<0.003	
8/6/2018					0.076			
8/7/2018			0.015				7.4E-05 (J)	
8/8/2018	0.019							
2/25/2019						0.045		
2/26/2019		0.017		0.014				7.5E-05 (J)
6/12/2019		0.017						
6/13/2019				0.014		0.062		<0.003

Prediction Limit

Constituent: Beryllium, Cadmium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R	GWC-3R	GWC-3R	GWC-5R	GWC-5R	GWC-1R	GWC-1R
11/22/2010	<0.003							
1/4/2011	<0.003							
2/17/2011	<0.003							
3/11/2011	<0.003							
3/28/2011	<0.003							
9/7/2011	<0.003		<0.003		<0.003			
9/8/2011							<0.001	
3/5/2012			<0.003		<0.003		<0.001	
3/6/2012	<0.003							
9/5/2012			<0.003		<0.003		<0.001	
9/11/2012	<0.003							
2/5/2013					<0.003		<0.001	
2/6/2013	<0.003		<0.003					
8/13/2013	<0.003		<0.003				<0.001	
8/14/2013					<0.003			
2/4/2014	<0.003						<0.001	
2/5/2014			<0.003		<0.003			
8/4/2014			0.0011 (J)		0.00026 (J)			
8/5/2014	<0.003						<0.001	
2/2/2015	<0.003						<0.001	
2/3/2015			0.00061 (J)		0.00023 (J)			
8/3/2015			0.00051 (JD)		0.00046 (JD)			
8/4/2015	<0.003						<0.001 (D)	
2/16/2016			0.00084 (J)		0.00048 (J)		<0.001	
2/17/2016	<0.003							
8/31/2016	<0.003		0.0003 (J)				<0.001	
9/1/2016					0.0005 (J)			
11/28/2016	<0.003							
11/29/2016							8E-05 (J)	
11/30/2016			0.0004 (J)					
12/1/2016					0.0003 (J)			
2/22/2017	<0.003							
2/23/2017			0.0003 (J)				<0.001	
2/24/2017					0.0002 (J)			
5/9/2017			0.0002 (J)				<0.001	
5/10/2017	<0.003				0.0003 (J)			
7/17/2017					0.0004 (J)			
7/18/2017	<0.003		0.0002 (J)				<0.001	
10/16/2017					0.0006 (J)			
10/17/2017	<0.003						<0.001	
10/18/2017			0.0004 (J)					
2/20/2018	<0.003							
2/21/2018			<0.003		<0.003		<0.001	
8/7/2018			0.00026 (J)		0.00096 (J)		<0.001	
8/8/2018	7E-05 (J)							
2/26/2019		5.3E-05 (J)		0.00038 (J)		0.0015 (J)		<0.001
6/12/2019		<0.003						
6/13/2019				0.00051 (J)		0.0015 (J)		<0.001

Prediction Limit

Constituent: Cadmium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R	GWC-3R	GWC-3R	GWC-4R	GWC-4R	GWC-5R	GWC-5R
11/22/2010	<0.001				<0.001			
1/4/2011	<0.001				<0.001			
2/17/2011	<0.001				<0.001			
3/11/2011	<0.001				<0.001			
3/28/2011	<0.001				<0.001			
9/7/2011	<0.001		<0.001		<0.001		<0.001	
3/4/2012					<0.001			
3/5/2012			<0.001				<0.001	
3/6/2012	<0.001							
9/5/2012			<0.001				<0.001	
9/10/2012					<0.001			
9/11/2012	<0.001							
2/5/2013							<0.001	
2/6/2013	<0.001		<0.001		<0.001			
8/13/2013	<0.001		<0.001					
8/14/2013					<0.001		<0.001	
2/4/2014	<0.001				<0.001			
2/5/2014			<0.001				<0.001	
8/4/2014			0.00034 (J)		<0.001		0.00045 (J)	
8/5/2014	<0.001							
2/2/2015	<0.001				<0.001			
2/3/2015			<0.001				<0.001	
8/3/2015			<0.001 (D)		<0.001 (D)		0.00046 (JD)	
8/4/2015	<0.001							
2/16/2016			0.00025 (J)		<0.001		0.00097 (J)	
2/17/2016	<0.001							
8/31/2016	0.0001 (J)		<0.001					
9/1/2016					0.0001 (J)		0.0005 (J)	
11/28/2016	0.0001 (J)							
11/30/2016			<0.001		<0.001			
12/1/2016							0.0004 (J)	
2/22/2017	<0.001							
2/23/2017			<0.001					
2/24/2017					<0.001		0.0003 (J)	
5/9/2017			<0.001					
5/10/2017	<0.001				<0.001		0.0003 (J)	
7/17/2017							0.0004 (J)	
7/18/2017	<0.001		<0.001		<0.001			
10/16/2017							0.0006 (J)	
10/17/2017	<0.001				<0.001			
10/18/2017			<0.001					
2/20/2018	<0.001				<0.001			
2/21/2018			<0.001				<0.001	
8/7/2018			<0.001				0.00083 (J)	
8/8/2018	<0.001				<0.001			
2/26/2019		<0.001		0.00011 (J)		<0.001		0.00081 (J)
6/12/2019		<0.001				<0.001		
6/13/2019				0.00021 (J)				0.00073 (J)

Prediction Limit

Constituent: Chromium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R
5/1/2007	0.0029							
9/11/2007	0.0084							
3/20/2008	0.0027							
8/27/2008	0.0026							
3/3/2009	0.0022							
11/18/2009	0.0036							
3/3/2010	<0.01							
9/8/2010	<0.01							
11/22/2010					<0.01			
1/4/2011					<0.01			
2/17/2011					<0.01			
3/10/2011	<0.01							
3/11/2011					<0.01			
3/28/2011					<0.01			
9/7/2011					<0.01		<0.01	
9/8/2011	<0.01		<0.01					
3/5/2012	<0.01		<0.01				<0.01	
3/6/2012					<0.01			
9/5/2012			<0.01				<0.01	
9/10/2012	<0.01							
9/11/2012					<0.01			
2/5/2013			<0.01					
2/6/2013	<0.01				<0.01		<0.01	
8/12/2013	<0.01							
8/13/2013			<0.01		0.0017		0.0019	
2/4/2014			<0.01		<0.01			
2/5/2014	0.0059						0.0023	
8/4/2014							0.002	
8/5/2014	<0.01		<0.01		<0.01			
2/2/2015			0.0028		<0.01			
2/3/2015							0.0014	
2/4/2015	<0.01							
8/3/2015	0.0011 (J)						0.0012 (JD)	
8/4/2015			<0.01 (D)		<0.01			
2/16/2016	<0.01		<0.01				0.0017	
2/17/2016					<0.01			
8/31/2016	<0.01		0.0012 (J)		<0.01		0.0013 (J)	
11/28/2016	<0.01				<0.01			
11/29/2016			0.0009 (J)					
11/30/2016							0.001 (J)	
2/22/2017	<0.01				<0.01			
2/23/2017			0.001 (J)				0.0012 (J)	
5/8/2017	<0.01							
5/9/2017			0.0011 (J)				0.0016 (J)	
5/10/2017					0.0008 (J)			
7/17/2017	<0.01							
7/18/2017			0.0008 (J)		<0.01		0.0009 (J)	
10/16/2017	<0.01							
10/17/2017			0.001 (J)		<0.01			
10/18/2017							0.001 (J)	
2/19/2018	<0.01							
2/20/2018					<0.01			

Prediction Limit

Constituent: Chromium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R
2/21/2018			<0.01				<0.01	
8/6/2018	<0.01							
8/7/2018			<0.01				<0.01	
8/8/2018					<0.01			
2/25/2019		<0.01						
2/26/2019				<0.01		<0.01		<0.01
6/12/2019		<0.01				<0.01		
6/13/2019				0.0009 (J)				0.00073 (J)

Prediction Limit

Constituent: Chromium, Cobalt Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R	GWA-2	GWA-2
5/1/2007							0.0067	
9/11/2007							<0.01	
3/20/2008							<0.01	
8/27/2008							<0.01	
3/3/2009							<0.01	
9/9/2009					<0.01			
11/18/2009					<0.01		<0.01	
1/5/2010					<0.01			
3/3/2010					<0.01		0.0027	
9/7/2010					<0.01			
9/8/2010							0.007	
11/22/2010	<0.01							
1/4/2011	0.0062							
2/17/2011	<0.01							
3/10/2011					<0.01		<0.01	
3/11/2011	<0.01							
3/28/2011	<0.01							
9/7/2011	<0.01		<0.01					
9/8/2011					0.0018		<0.01	
3/4/2012	<0.01							
3/5/2012			<0.01		<0.01		0.0032	
9/5/2012			<0.01		0.0013			
9/10/2012	<0.01						<0.01	
2/5/2013			<0.01		<0.01			
2/6/2013	<0.01						<0.01	
8/12/2013							0.0045	
8/13/2013					0.0025			
8/14/2013	<0.01		0.0016					
2/4/2014	<0.01				0.0013			
2/5/2014			0.0018				<0.01	
8/4/2014	<0.01		0.0029					
8/5/2014					0.0018		0.0027	
2/2/2015	<0.01							
2/3/2015			0.0017		0.0015			
2/4/2015							0.0016	
8/3/2015	<0.01 (D)		0.0028 (D)				0.002	
8/4/2015					0.0028			
2/16/2016	<0.01		0.0028		0.001 (J)		0.0027	
8/31/2016							0.0053 (J)	
9/1/2016	<0.01		0.0021 (J)		0.0015 (J)			
11/28/2016							0.0036 (J)	
11/29/2016					0.0014 (J)			
11/30/2016	0.0013 (J)							
12/1/2016			0.0017 (J)					
2/22/2017							0.0049 (J)	
2/23/2017					0.0017 (J)			
2/24/2017	<0.01		0.0018 (J)					
5/8/2017							0.0059 (J)	
5/10/2017	0.0007 (J)		0.0024 (J)		0.0015 (J)			
7/17/2017			0.0017 (J)				0.0046 (J)	
7/18/2017	0.0011 (J)				0.0012 (J)			
10/16/2017			0.0023 (J)				0.0034 (J)	

Prediction Limit

Constituent: Chromium, Cobalt Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R	GWA-2	GWA-2
10/17/2017	<0.01							
10/18/2017					0.0012 (J)			
2/19/2018					<0.01		<0.01	
2/20/2018	<0.01							
2/21/2018			<0.01					
8/6/2018					<0.01		0.003 (J)	
8/7/2018			0.0024 (J)					
8/8/2018	<0.01							
2/25/2019						<0.01		0.001 (J)
2/26/2019		<0.01		0.0019 (J)				
6/12/2019		<0.01						0.003 (J)
6/13/2019				0.0018 (J)		0.00089 (J)		

Prediction Limit

Constituent: Cobalt Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R	GWC-4R	GWC-4R
11/22/2010			0.038				<0.01	
1/4/2011			0.049				0.0036	
2/17/2011			0.044				0.0035	
3/11/2011			0.038				0.0053	
3/28/2011			0.029				<0.01	
9/7/2011			0.031		<0.01		0.0033	
3/4/2012							0.0032	
3/5/2012	<0.01				<0.01			
3/6/2012			0.021					
9/5/2012	0.0018				<0.01			
9/10/2012							0.0067	
9/11/2012			0.017					
2/5/2013	0.0013							
2/6/2013			0.025		<0.01		0.0024	
8/13/2013	<0.01		0.023		<0.01			
8/14/2013							0.0014	
2/4/2014	<0.01		0.019				<0.01	
2/5/2014					<0.01			
8/4/2014					<0.01		<0.01	
8/5/2014	<0.01		0.023					
2/2/2015	0.0015		0.022				<0.01	
2/3/2015					<0.01			
8/3/2015					<0.01 (D)		<0.01 (D)	
8/4/2015	<0.01 (D)		0.021					
2/16/2016	<0.01				<0.01		0.0082	
2/17/2016			0.024					
8/31/2016	0.0006 (J)		0.0239		<0.01			
9/1/2016							0.0023 (J)	
11/28/2016			0.0189					
11/29/2016	<0.01							
11/30/2016					<0.01		0.0008 (J)	
2/22/2017			0.0184					
2/23/2017	0.0009 (J)				<0.01			
2/24/2017							0.0025 (J)	
5/9/2017	0.0008 (J)				<0.01			
5/10/2017			0.0213				<0.01	
7/18/2017	0.0032 (J)		0.0261		<0.01		0.0005 (J)	
10/17/2017	0.0007 (J)		0.0182				0.0006 (J)	
10/18/2017					<0.01			
2/20/2018			<0.01				<0.01	
2/21/2018	<0.01				<0.01			
8/7/2018	<0.01				<0.01			
8/8/2018			0.014				0.001 (J)	
2/26/2019		<0.01		0.029		<0.01		<0.01
6/12/2019				0.013				0.00078 (J)
6/13/2019		0.00033 (J)				0.01		

Prediction Limit

Constituent: Cobalt, Copper Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-3R	GWC-3R
5/1/2007			0.0047					
9/11/2007			<0.025					
3/20/2008			<0.025					
8/27/2008			0.0074					
3/3/2009			<0.025					
9/9/2009	<0.01							
11/18/2009	<0.01		0.0029					
1/5/2010	<0.01							
3/3/2010	<0.01		0.005					
9/7/2010	<0.01							
9/8/2010			<0.025					
3/10/2011	<0.01		0.0029					
9/7/2011							<0.025	
9/8/2011	<0.01		<0.025		<0.025			
3/5/2012	<0.01		<0.025		<0.025		<0.025	
9/5/2012	<0.01				<0.025		0.016	
9/10/2012			<0.025					
2/5/2013	<0.01				<0.025			
2/6/2013			<0.025				<0.025	
8/12/2013			<0.025					
8/13/2013	<0.01				<0.025		<0.025	
2/4/2014	<0.01				<0.025			
2/5/2014			<0.025				<0.025	
8/4/2014							0.0012 (J)	
8/5/2014	<0.01		0.005		<0.025			
2/2/2015					0.0031 (J)			
2/3/2015	<0.01						<0.025	
2/4/2015			0.0025 (J)					
8/3/2015			0.0014 (J)				<0.025 (D)	
8/4/2015	0.0014				<0.025 (D)			
2/16/2016	<0.01		0.0011 (J)		<0.025		0.00082 (J)	
9/1/2016	<0.01							
11/29/2016	<0.01							
2/22/2017			0.0011 (J)					
2/23/2017	<0.01				<0.025		<0.025	
5/10/2017	<0.01							
7/18/2017	<0.01							
10/18/2017	<0.01							
2/19/2018	<0.01		<0.025					
2/21/2018					<0.025		<0.025	
8/6/2018	<0.01		<0.025					
8/7/2018					<0.025		<0.025	
2/25/2019		<0.01		<0.025				
2/26/2019						<0.025		<0.025
6/12/2019				0.00034 (J)				
6/13/2019		<0.01				<0.025		<0.025

Prediction Limit

Constituent: Copper, Lead Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R	GWC-2R	GWC-2R
9/9/2009					0.0028			
11/18/2009					0.0027			
1/5/2010					0.0035			
3/3/2010					<0.005			
9/7/2010					<0.005			
11/22/2010	<0.025						<0.005	
1/4/2011	0.0049						<0.005	
2/17/2011	<0.025						<0.005	
3/10/2011					<0.005			
3/11/2011	<0.025						<0.005	
3/28/2011	<0.025						<0.005	
9/7/2011	<0.025		<0.025				<0.005	
9/8/2011					<0.005			
3/4/2012	<0.025							
3/5/2012			<0.025		<0.005			
3/6/2012							<0.005	
9/5/2012			<0.025		<0.005			
9/10/2012	<0.025							
9/11/2012							<0.005	
2/5/2013			<0.025		<0.005			
2/6/2013	<0.025						<0.005	
8/13/2013					<0.005		<0.005	
8/14/2013	<0.025		<0.025					
2/4/2014	<0.025				<0.005		<0.005	
2/5/2014			<0.025					
8/4/2014	<0.025		0.0015 (J)					
8/5/2014					0.0012 (J)		<0.005	
2/2/2015	<0.025						<0.005	
2/3/2015			<0.025		0.0013 (J)			
8/3/2015	<0.025 (D)		<0.025 (D)					
8/4/2015					0.0043 (J)		<0.005	
2/16/2016	0.00088 (J)		<0.025		<0.005			
2/17/2016							<0.005	
8/31/2016							<0.005	
11/28/2016							<0.005	
2/22/2017							<0.005	
2/23/2017					0.0018 (J)			
2/24/2017	<0.025		<0.025					
5/10/2017							0.0001 (J)	
7/18/2017							7E-05 (J)	
10/17/2017							<0.005	
2/19/2018					<0.005			
2/20/2018	<0.025						<0.005	
2/21/2018			<0.025					
8/6/2018					0.0016 (J)			
8/7/2018			<0.025					
8/8/2018	<0.025						<0.005	
2/25/2019						0.0016 (J)		
2/26/2019		<0.025		<0.025				<0.005
6/12/2019		0.00025 (J)						<0.005
6/13/2019				0.00049 (J)		0.0011 (J)		

Prediction Limit

Constituent: Lead, Mercury Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-2R	GWC-2R
5/1/2007			<0.0005					
9/11/2007			<0.0005					
3/20/2008			<0.0005					
8/27/2008			<0.0005					
3/3/2009			<0.0005					
11/18/2009			<0.0005					
3/3/2010			<0.0005					
9/8/2010			<0.0005					
11/22/2010							<0.0005	
1/4/2011							<0.0005	
2/17/2011							<0.0005	
3/10/2011			<0.0005					
3/11/2011							<0.0005	
3/28/2011							<0.0005	
9/7/2011	<0.005						<0.0005	
9/8/2011			<0.0005		<0.0005			
3/5/2012	<0.005		<0.0005		<0.0005			
3/6/2012							<0.0005	
9/5/2012	<0.005				<0.0005			
9/10/2012			<0.0005					
9/11/2012							<0.0005	
2/5/2013					<0.0005			
2/6/2013	<0.005		<0.0005				<0.0005	
8/12/2013			<0.0005					
8/13/2013	<0.005				<0.0005		<0.0005	
2/4/2014					<0.0005		<0.0005	
2/5/2014	<0.005		<0.0005					
8/4/2014	<0.005							
8/5/2014			<0.0005		<0.0005		<0.0005	
2/2/2015					<0.0005		<0.0005	
2/3/2015	<0.005							
2/4/2015			<0.0005					
8/3/2015	<0.005 (D)		<0.0005					
8/4/2015					<0.0005 (D)		<0.0005	
2/16/2016	<0.005		1.36E-05 (J)		<0.0005			
2/17/2016							<0.0005	
8/31/2016	0.0001 (J)		<0.0005		<0.0005		<0.0005	
11/28/2016			<0.0005				<0.0005	
11/29/2016					<0.0005			
11/30/2016	<0.005							
2/22/2017			<0.0005				<0.0005	
2/23/2017	<0.005				<0.0005			
5/8/2017			<0.0005					
5/9/2017	<0.005				<0.0005			
5/10/2017							<0.0005	
7/17/2017			<0.0005					
7/18/2017	<0.005				<0.0005		<0.0005	
10/16/2017			<0.0005					
10/17/2017					<0.0005		<0.0005	
10/18/2017	8E-05 (J)							
2/19/2018			<0.0005					
2/20/2018							<0.0005	

Prediction Limit

Constituent: Lead, Mercury Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-2R	GWC-2R
2/21/2018	<0.005				<0.0005			
8/6/2018			<0.0005					
8/7/2018	<0.005				<0.0005			
8/8/2018							<0.0005	
2/25/2019				7.4E-05 (J)				
2/26/2019		<0.005				5.9E-05 (J)		7.1E-05 (J)
6/12/2019				<0.0005				<0.0005
6/13/2019		<0.005				<0.0005		

Prediction Limit

Constituent: Mercury Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R
9/9/2009							<0.0005	
11/18/2009							<0.0005	
1/5/2010							<0.0005	
3/3/2010							<0.0005	
9/7/2010							<0.0005	
11/22/2010			<0.0005					
1/4/2011			<0.0005					
2/17/2011			<0.0005					
3/10/2011							<0.0005	
3/11/2011			<0.0005					
3/28/2011			<0.0005					
9/7/2011	<0.0005		<0.0005		<0.0005			
9/8/2011							<0.0005	
3/4/2012			<0.0005					
3/5/2012	<0.0005				<0.0005		<0.0005	
9/5/2012	<0.0005				<0.0005		<0.0005	
9/10/2012			<0.0005					
2/5/2013					<0.0005		<0.0005	
2/6/2013	<0.0005		0.00014					
8/13/2013	<0.0005						<0.0005	
8/14/2013			<0.0005		<0.0005			
2/4/2014			<0.0005				<0.0005	
2/5/2014	<0.0005				<0.0005			
8/4/2014	<0.0005		<0.0005		<0.0005			
8/5/2014							<0.0005	
2/2/2015			<0.0005					
2/3/2015	<0.0005				<0.0005		<0.0005	
8/3/2015	<0.0005 (D)		<0.0005 (D)		<0.0005 (D)			
8/4/2015							<0.0005	
2/16/2016	1.34E-05 (J)		<0.0005		<0.0005		1.13E-05 (J)	
8/31/2016	<0.0005							
9/1/2016			<0.0005		<0.0005		<0.0005	
11/29/2016							<0.0005	
11/30/2016	<0.0005		<0.0005					
12/1/2016					<0.0005			
2/23/2017	<0.0005						<0.0005	
2/24/2017			<0.0005		<0.0005			
5/9/2017	<0.0005							
5/10/2017			<0.0005		<0.0005		<0.0005	
7/17/2017					<0.0005			
7/18/2017	<0.0005		<0.0005				<0.0005	
10/16/2017					<0.0005			
10/17/2017			<0.0005					
10/18/2017	<0.0005						<0.0005	
2/19/2018							<0.0005	
2/20/2018			<0.0005					
2/21/2018	<0.0005				<0.0005			
8/6/2018							<0.0005	
8/7/2018	<0.0005				<0.0005			
8/8/2018			<0.0005					
2/25/2019								6.7E-05 (J)
2/26/2019		6.4E-05 (J)		5.8E-05 (J)		6E-05 (J)		

Prediction Limit

Constituent: Mercury Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-3R	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R
6/12/2019				<0.0005				
6/13/2019		<0.0005				<0.0005		<0.0005

Prediction Limit

Constituent: Nickel Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2	GWA-2	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R
5/1/2007	0.0061							
9/11/2007	0.021							
3/20/2008	<0.005							
8/27/2008	<0.005							
3/3/2009	0.005							
11/18/2009	0.0052							
3/3/2010	0.011							
9/8/2010	0.012							
11/22/2010					0.0096			
1/4/2011					0.0084			
2/17/2011					0.0088			
3/10/2011	0.0032							
3/11/2011					0.0058			
3/28/2011					0.0058			
9/7/2011					0.005		0.0054	
9/8/2011	0.0046		0.009					
3/5/2012	0.0053		0.0035				<0.01	
3/6/2012					<0.01			
9/5/2012			0.0027				<0.01	
9/10/2012	0.0074							
9/11/2012					<0.01			
2/5/2013			0.0026					
2/6/2013	0.0077				<0.01		<0.01	
8/12/2013	0.016							
8/13/2013			<0.01		0.003		0.0032	
2/4/2014			<0.01		0.0026			
2/5/2014	0.019						0.0039	
8/4/2014							0.0024 (J)	
8/5/2014	0.0057		0.0013 (J)		0.0015 (J)			
2/2/2015			0.0023 (J)		<0.01			
2/3/2015							<0.01	
2/4/2015	0.0055							
8/3/2015	0.0055						<0.01 (D)	
8/4/2015			<0.01 (D)		<0.01			
2/16/2016	0.0039		<0.01				<0.01	
2/17/2016					<0.01			
2/22/2017	0.0051 (J)				0.0009 (J)			
2/23/2017			0.0026 (J)				<0.01	
2/19/2018	<0.005							
2/20/2018					<0.01			
2/21/2018			0.001 (J)				<0.01	
8/6/2018	0.003 (J)							
8/7/2018			<0.01				<0.01	
8/8/2018					<0.01			
2/25/2019		0.0026 (J)						
2/26/2019				<0.01		0.0068 (J)		<0.01
6/12/2019		0.0038 (J)				0.00043 (J)		
6/13/2019				0.00072 (J)				<0.01

Prediction Limit

Constituent: Nickel, Selenium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-4R	GWC-4R	GWC-5R	GWC-5R	GWC-6R	GWC-6R	GWC-1R	GWC-1R
9/9/2009					<0.005			
11/18/2009					<0.005			
1/5/2010					<0.005			
3/3/2010					<0.005			
9/7/2010					<0.005			
11/22/2010	<0.01							
1/4/2011	<0.01							
2/17/2011	<0.01							
3/10/2011					<0.005			
3/11/2011	<0.01							
3/28/2011	<0.01							
9/7/2011	<0.01		<0.0025					
9/8/2011					<0.005		<0.01	
3/4/2012	<0.01							
3/5/2012			<0.0025		<0.005		<0.01	
9/5/2012			<0.0025		<0.005		<0.01	
9/10/2012	<0.01							
2/5/2013			<0.0025		<0.005		<0.01	
2/6/2013	<0.01							
8/13/2013					<0.005		<0.01	
8/14/2013	<0.01		0.0032					
2/4/2014	0.0033				<0.005		<0.01	
2/5/2014			0.0032					
8/4/2014	0.0015 (J)		0.0059					
8/5/2014					<0.005		<0.01	
2/2/2015	<0.01						<0.01	
2/3/2015			0.0013 (J)		<0.005			
8/3/2015	<0.01 (D)		0.0039 (D)					
8/4/2015					<0.005		<0.01 (D)	
2/16/2016	<0.01		0.0036		<0.005		<0.01	
8/31/2016							0.0039 (J)	
11/29/2016							0.0033 (J)	
2/23/2017					0.0015 (J)		0.0097 (J)	
2/24/2017	0.0021 (J)		0.0019 (J)					
5/9/2017							0.0066 (J)	
7/18/2017							0.0021 (J)	
10/17/2017							0.003 (J)	
2/19/2018					<0.005			
2/20/2018	<0.01							
2/21/2018			0.0013 (J)				<0.01	
8/6/2018					0.0026 (J)			
8/7/2018			0.0019 (J)				<0.01	
8/8/2018	0.0012 (J)							
2/25/2019						0.0023 (J)		
2/26/2019		<0.01		0.0023 (J)				0.0014 (J)
6/12/2019		0.00082 (J)						
6/13/2019				0.0019 (J)		0.0037 (J)		<0.01

Prediction Limit

Constituent: Selenium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R	GWC-3R	GWC-3R	GWC-4R	GWC-4R	GWC-5R	GWC-5R
11/22/2010	<0.01				<0.01			
1/4/2011	<0.01				<0.01			
2/17/2011	<0.01				<0.01			
3/11/2011	<0.01				<0.01			
3/28/2011	<0.01				<0.01			
9/7/2011	<0.01		<0.01		<0.01		<0.013	
3/4/2012					<0.01			
3/5/2012			<0.01				0.014	
3/6/2012	<0.01							
9/5/2012			<0.01				0.012	
9/10/2012					0.011			
9/11/2012	<0.01							
2/5/2013							0.011	
2/6/2013	<0.01		<0.01		0.011			
8/13/2013	<0.01		0.0057					
8/14/2013					0.013		0.025	
2/4/2014	<0.01				0.017			
2/5/2014			<0.01				0.02	
8/4/2014			<0.01		0.0085		0.032	
8/5/2014	<0.01							
2/2/2015	<0.01				0.0089			
2/3/2015			<0.01				0.011	
8/3/2015			<0.01 (D)		0.0067 (D)		0.046 (D)	
8/4/2015	<0.01							
2/16/2016			<0.01		0.0047 (J)		0.022	
2/17/2016	<0.01							
8/31/2016	0.0029 (J)		0.0038 (J)					
9/1/2016					0.0132		0.0212	
11/28/2016	0.0019 (J)							
11/30/2016			0.0054 (J)		0.0046 (J)			
12/1/2016							0.0234	
2/22/2017	0.0015 (J)							
2/23/2017			0.002 (J)					
2/24/2017					0.0108		0.0154	
5/9/2017			<0.01					
5/10/2017	0.0016 (J)				0.0054 (J)		0.0152	
7/17/2017							0.0136	
7/18/2017	0.0024 (J)		0.0027 (J)		0.0047 (J)			
10/16/2017							0.0242	
10/17/2017	0.0028 (J)				0.004 (J)			
10/18/2017			0.0047 (J)					
2/20/2018	<0.01				<0.01			
2/21/2018			<0.01				0.0127	
8/7/2018			0.0016 (J)				0.021	
8/8/2018	0.0025 (J)				0.0041 (J)			
2/26/2019		0.003 (J)		0.002 (J)		0.0027 (J)		0.024
6/12/2019		0.0034 (J)				0.0029 (J)		
6/13/2019				0.0089 (J)				0.027

Prediction Limit

Constituent: Selenium, Thallium, Vanadium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R	GWA-2	GWA-2	GWC-2R	GWC-2R	GWA-2	GWA-2
5/1/2007			<0.001				0.0055	
9/11/2007			<0.001				0.004	
3/20/2008			<0.001				<0.01	
8/27/2008			<0.001				0.0029	
3/3/2009			<0.001				<0.01	
9/9/2009	<0.01							
11/18/2009	<0.01		<0.001				<0.01	
1/5/2010	<0.01							
3/3/2010	<0.01		<0.001				<0.01	
9/7/2010	<0.01							
9/8/2010			<0.001				<0.01	
11/22/2010					<0.001			
1/4/2011					<0.001			
2/17/2011					<0.001			
3/10/2011	<0.01		<0.001				<0.01	
3/11/2011					<0.001			
3/28/2011					<0.001			
9/7/2011					<0.001			
9/8/2011	<0.01		<0.001				<0.01	
3/5/2012	<0.01		<0.001				<0.01	
3/6/2012					<0.001			
9/5/2012	<0.01							
9/10/2012			<0.001				<0.01	
9/11/2012					<0.001			
2/5/2013	<0.01							
2/6/2013			<0.001		<0.001		<0.01	
8/12/2013			<0.001				<0.01	
8/13/2013	<0.01				<0.001			
2/4/2014	<0.01				<0.001			
2/5/2014			<0.001				<0.01	
8/5/2014	<0.01		<0.001				<0.01	
2/2/2015					<0.001			
2/3/2015	<0.01							
2/4/2015			<0.001				<0.01	
8/3/2015							0.0013 (J)	
8/4/2015	<0.01							
2/16/2016	<0.01		<0.001				<0.01	
2/17/2016					7E-05 (J)			
8/31/2016			<0.001		<0.001			
9/1/2016	0.002 (J)							
11/28/2016			<0.001		<0.001			
11/29/2016	0.0017 (J)							
2/22/2017			<0.001		<0.001		<0.01	
2/23/2017	0.0018 (J)							
5/8/2017			6E-05 (J)				<0.01	
5/10/2017	0.0023 (J)				<0.001			
7/17/2017			6E-05 (J)				<0.01	
7/18/2017	0.0046 (J)				<0.001			
10/16/2017			7E-05 (J)					
10/17/2017					<0.001			
10/18/2017	0.0037 (J)							
2/19/2018	<0.01		<0.001				<0.01	

Prediction Limit

Constituent: Selenium, Thallium, Vanadium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R	GWA-2	GWA-2	GWC-2R	GWC-2R	GWA-2	GWA-2
2/20/2018					<0.001			
8/6/2018	0.0047 (J)		<0.001				<0.01	
8/8/2018					<0.001			
2/25/2019		0.0051 (J)		<0.001				<0.01
2/26/2019						<0.001		
6/12/2019				<0.001		<0.001		0.0032 (J)
6/13/2019		0.0048 (J)						

Prediction Limit

Constituent: Vanadium Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-1R	GWC-2R	GWC-2R	GWC-3R	GWC-3R	GWC-4R	GWC-4R
11/22/2010			<0.01				<0.01	
1/4/2011			<0.01				<0.01	
2/17/2011			<0.01				<0.01	
3/11/2011			<0.01				<0.01	
3/28/2011			<0.01				<0.01	
9/7/2011			<0.01		<0.01		<0.01	
9/8/2011	<0.01							
3/4/2012							<0.01	
3/5/2012	<0.01				<0.01			
3/6/2012			<0.01					
9/5/2012	<0.01				<0.01			
9/10/2012							<0.01	
9/11/2012			<0.01					
2/5/2013	<0.01							
2/6/2013			<0.01		<0.01		<0.01	
8/13/2013	<0.01		<0.01		<0.01			
8/14/2013							<0.01	
2/4/2014	<0.01		<0.01				<0.01	
2/5/2014					<0.01			
8/4/2014					<0.01		<0.01	
8/5/2014	0.0011 (J)		<0.01					
2/2/2015	0.0051		<0.01				<0.01	
2/3/2015					<0.01			
8/3/2015					<0.01 (D)		<0.01 (D)	
8/4/2015	<0.01 (D)		<0.01					
2/16/2016	0.00075 (J)				<0.01		<0.01	
2/17/2016			<0.01					
2/22/2017			<0.01					
2/23/2017	<0.01				<0.01			
2/24/2017							<0.01	
5/9/2017	<0.01				<0.01			
5/10/2017			<0.01				<0.01	
7/18/2017	<0.01		<0.01		<0.01		<0.01	
2/20/2018			<0.01				<0.01	
2/21/2018	<0.01				<0.01			
8/7/2018	<0.01				<0.01			
8/8/2018			<0.01				<0.01	
2/26/2019		<0.01		<0.01		<0.01		<0.01
6/12/2019				0.00079 (J)				0.00088 (J)
6/13/2019		<0.01				0.0021 (J)		

Prediction Limit

Constituent: Vanadium, Zinc Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-5R	GWC-6R	GWC-6R	GWA-2	GWA-2	GWC-1R	GWC-1R
5/1/2007					0.0081			
9/11/2007					0.0049			
3/20/2008					0.004			
8/27/2008					0.0042			
3/3/2009					0.0058			
9/9/2009			<0.01					
11/18/2009			<0.01		0.0038			
1/5/2010			<0.01					
3/3/2010			<0.01		0.0085			
9/7/2010			<0.01					
9/8/2010					0.0065			
3/10/2011			<0.01		0.0029			
9/7/2011	<0.01							
9/8/2011			<0.01		0.004		0.0048	
3/5/2012	<0.01		<0.01		0.0059		0.0038	
9/5/2012	<0.01		<0.01				0.0051	
9/10/2012					0.0052			
2/5/2013	<0.01		<0.01				<0.01	
2/6/2013					0.0038			
8/12/2013					0.0075			
8/13/2013			<0.01				<0.01	
8/14/2013	<0.01							
2/4/2014			<0.01				0.0037	
2/5/2014	<0.01							
8/4/2014	0.0022 (J)							
8/5/2014			0.0015 (J)		0.0037		0.0019 (J)	
2/2/2015							0.0051	
2/3/2015	<0.01		0.00093 (J)					
2/4/2015					0.0057			
8/3/2015	0.0019 (JD)				0.0043			
8/4/2015			0.0036 (J)				0.0017 (JD)	
2/16/2016	0.0011 (J)		0.0011 (J)		0.0024 (J)		0.0015 (J)	
2/22/2017					0.0042 (J)			
2/23/2017			<0.01				0.0024 (J)	
2/24/2017	<0.01							
5/8/2017					0.0025 (J)			
5/9/2017							0.0016 (J)	
5/10/2017	<0.01		<0.01					
7/17/2017	<0.01				0.0032 (J)			
7/18/2017			<0.01				0.0015 (J)	
2/19/2018			<0.01		<0.01			
2/21/2018	<0.01						<0.01	
8/6/2018			0.0029 (J)		0.0037 (J)			
8/7/2018	<0.01						0.0044 (J)	
2/25/2019				<0.01		0.013		
2/26/2019		<0.01						0.0022 (J)
6/12/2019						<0.01		
6/13/2019		<0.01		<0.01				<0.01

Prediction Limit

Constituent: Zinc Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-2R	GWC-2R	GWC-3R	GWC-3R	GWC-4R	GWC-4R	GWC-5R	GWC-5R
11/22/2010	0.0047				<0.01			
1/4/2011	0.0038				<0.01			
2/17/2011	0.0074				<0.01			
3/11/2011	0.0038							
3/28/2011	<0.01				<0.01			
9/7/2011	0.0059		0.0064		<0.01		0.0064	
3/4/2012					<0.01			
3/5/2012			0.0043				0.0034	
3/6/2012	0.0032							
9/5/2012			0.0069				0.0035	
9/10/2012					<0.01			
9/11/2012	0.0029							
2/5/2013							0.0027	
2/6/2013	0.0036		<0.0025		<0.01			
8/13/2013	0.0066		0.011					
8/14/2013					<0.01		0.0041	
2/4/2014	0.011				0.0034			
2/5/2014							0.011	
8/4/2014			0.012		0.0013 (J)		0.011	
8/5/2014	0.0032							
2/2/2015	0.0031				<0.01			
2/3/2015			0.0061				0.0044	
8/3/2015			0.0037 (D)		<0.01 (D)		0.011 (D)	
8/4/2015	0.0017 (J)							
2/16/2016			0.0093		0.0017 (J)		0.014	
2/17/2016	0.0034							
2/22/2017	0.0024 (J)							
2/23/2017			0.0031 (J)					
2/24/2017					0.0028 (J)		0.0043 (J)	
5/9/2017			0.0025 (J)					
5/10/2017	0.0022 (J)				0.0014 (J)		0.0042 (J)	
7/17/2017							0.0055 (J)	
7/18/2017	0.0017 (J)		0.0028 (J)		0.0015 (J)			
2/20/2018	<0.01				<0.01			
2/21/2018			0.003 (J)				0.0102	
8/7/2018			0.0036 (J)				0.015	
8/8/2018	0.0021 (J)				0.0033 (J)			
2/26/2019		0.003 (J)		0.0033 (J)		<0.01		0.015
6/12/2019		0.0019 (J)				<0.01		
6/13/2019				0.0069 (J)				0.015

Prediction Limit

Constituent: Zinc Analysis Run 8/27/2019 1:52 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWC-6R
9/9/2009	0.003	
11/18/2009	<0.01	
1/5/2010	0.0027	
3/3/2010	<0.01	
9/7/2010	<0.01	
3/10/2011	<0.01	
9/8/2011	<0.01	
3/5/2012	0.0053	
9/5/2012	0.0033	
2/5/2013	<0.01	
8/13/2013	0.0038	
2/4/2014	0.0046	
8/5/2014	0.0019 (J)	
2/3/2015	0.0026	
8/4/2015	0.0035	
2/16/2016	0.002 (J)	
2/23/2017	0.0038 (J)	
5/10/2017	0.0027 (J)	
7/18/2017	0.0024 (J)	
2/19/2018	<0.01	
8/6/2018	0.004 (J)	
2/25/2019		0.0028 (J)
6/13/2019		<0.01

Trend Test Significant Results

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 8/27/2019, 2:00 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Alpha	Method
Calcium (mg/L)	**GWC-1R**	**-17.01**	**-33**	**-27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
Calcium (mg/L)	**GWC-6R**	**37.56**	**31**	**27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
Cobalt (mg/L)	**GWA-2 (bg)**	**-0.0005031**	**-141**	**-125**	**Yes**	**29**	**37.93**	**n/a**	**0.02**	**NP**
Fluoride (mg/L)	**GWC-2R**	**0.1493**	**29**	**27**	**Yes**	**10**	**50**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	**GWC-1R**	**-117.2**	**-35**	**-27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	**GWC-6R**	**197.7**	**31**	**27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
TDS (mg/L)	**GWC-1R**	**-193.4**	**-37**	**-27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
TDS (mg/L)	**GWC-6R**	**302.4**	**31**	**27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**

Trend Test All Results

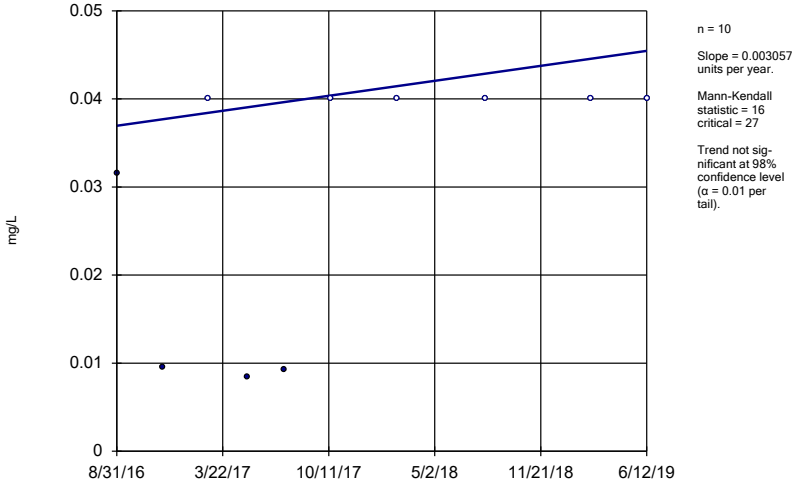
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill Printed 8/27/2019, 2:00 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Alpha	Method
Boron (mg/L)	GWA-2 (bg)	0.003057	16	27	No	10	60	n/a	0.02	NP
Boron (mg/L)	GWC-1R	0.01648	19	27	No	10	0	n/a	0.02	NP
Boron (mg/L)	GWC-4R	-0.2558	-9	-27	No	10	0	n/a	0.02	NP
Calcium (mg/L)	GWA-2 (bg)	2.168	19	27	No	10	10	n/a	0.02	NP
Calcium (mg/L)	**GWC-1R**	**-17.01**	**-33**	**-27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
Calcium (mg/L)	GWC-2R	1.284	5	27	No	10	10	n/a	0.02	NP
Calcium (mg/L)	GWC-4R	-1.058	-7	-27	No	10	10	n/a	0.02	NP
Calcium (mg/L)	GWC-5R	-11.77	-9	-27	No	10	0	n/a	0.02	NP
Calcium (mg/L)	**GWC-6R**	**37.56**	**31**	**27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
Chloride (mg/L)	GWA-2 (bg)	0.1776	13	27	No	10	0	n/a	0.02	NP
Chloride (mg/L)	GWC-1R	10.43	23	27	No	10	0	n/a	0.02	NP
Chloride (mg/L)	GWC-2R	-0.2409	-8	-27	No	10	0	n/a	0.02	NP
Chloride (mg/L)	GWC-3R	-0.722	-27	-27	No	10	0	n/a	0.02	NP
Chloride (mg/L)	GWC-4R	-5.728	-11	-27	No	10	0	n/a	0.02	NP
Chloride (mg/L)	GWC-5R	-0.3266	-7	-27	No	10	0	n/a	0.02	NP
Chloride (mg/L)	GWC-6R	0	2	27	No	10	0	n/a	0.02	NP
Cobalt (mg/L)	**GWA-2 (bg)**	**-0.0005031**	**-141**	**-125**	**Yes**	**29**	**37.93**	**n/a**	**0.02**	**NP**
Cobalt (mg/L)	GWC-3R	0	0	73	No	20	95	n/a	0.02	NP
Fluoride (mg/L)	GWA-2 (bg)	0	1	27	No	10	0	n/a	0.02	NP
Fluoride (mg/L)	**GWC-2R**	**0.1493**	**29**	**27**	**Yes**	**10**	**50**	**n/a**	**0.02**	**NP**
Fluoride (mg/L)	GWC-3R	0.1336	27	27	No	10	50	n/a	0.02	NP
pH (S.U.)	GWA-2 (bg)	-0.02897	-57	-84	No	22	0	n/a	0.02	NP
pH (S.U.)	GWC-1R	0.0668	18	27	No	10	0	n/a	0.02	NP
Sulfate (mg/L)	GWA-2 (bg)	12.93	22	27	No	10	0	n/a	0.02	NP
Sulfate (mg/L)	**GWC-1R**	**-117.2**	**-35**	**-27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	GWC-2R	-4.417	-3	-27	No	10	0	n/a	0.02	NP
Sulfate (mg/L)	GWC-5R	-99.69	-19	-27	No	10	0	n/a	0.02	NP
Sulfate (mg/L)	**GWC-6R**	**197.7**	**31**	**27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
TDS (mg/L)	GWA-2 (bg)	6.113	3	27	No	10	0	n/a	0.02	NP
TDS (mg/L)	**GWC-1R**	**-193.4**	**-37**	**-27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**
TDS (mg/L)	GWC-2R	15.14	5	27	No	10	0	n/a	0.02	NP
TDS (mg/L)	GWC-4R	-13.89	-7	-27	No	10	0	n/a	0.02	NP
TDS (mg/L)	GWC-5R	-144.7	-17	-27	No	10	0	n/a	0.02	NP
TDS (mg/L)	**GWC-6R**	**302.4**	**31**	**27**	**Yes**	**10**	**0**	**n/a**	**0.02**	**NP**

Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-2 (bg)



n = 10

Slope = 0.003057 units per year.

Mann-Kendall statistic = 16
critical = 27

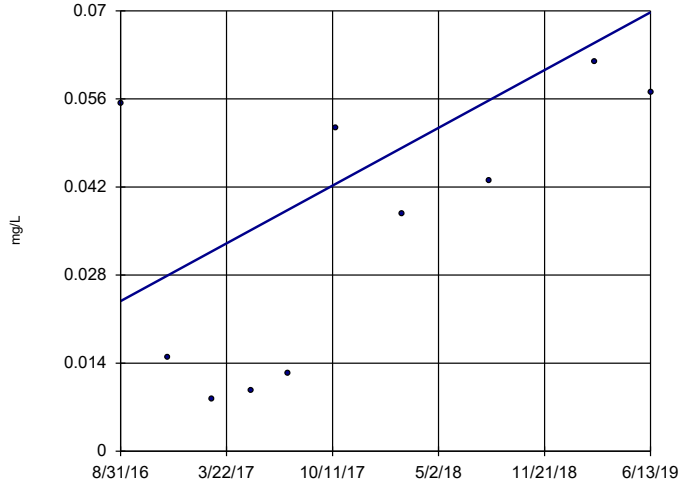
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWC-1R



n = 10

Slope = 0.01648 units per year.

Mann-Kendall statistic = 19
critical = 27

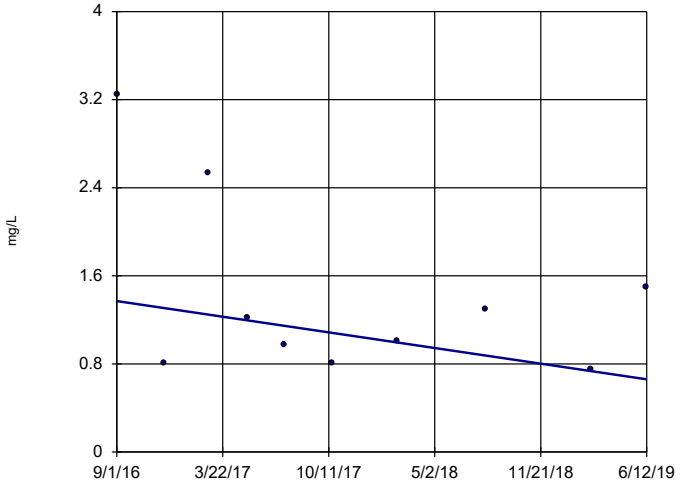
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWC-4R



n = 10

Slope = -0.2558 units per year.

Mann-Kendall statistic = -9
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

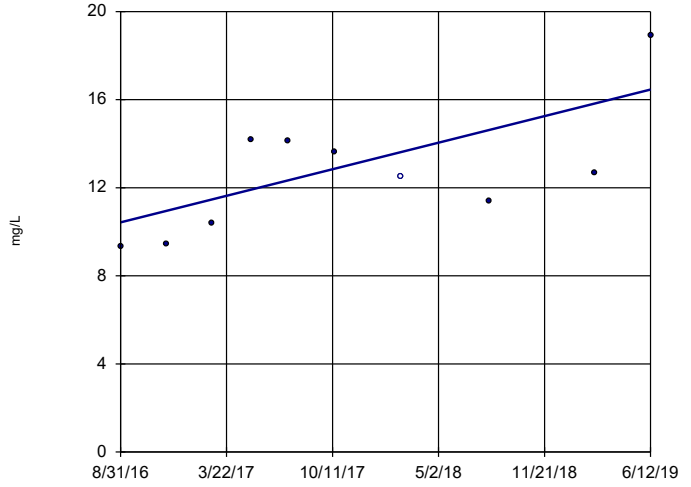
Constituent: Boron Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-2 (bg)



n = 10

Slope = 2.168 units per year.

Mann-Kendall statistic = 19
critical = 27

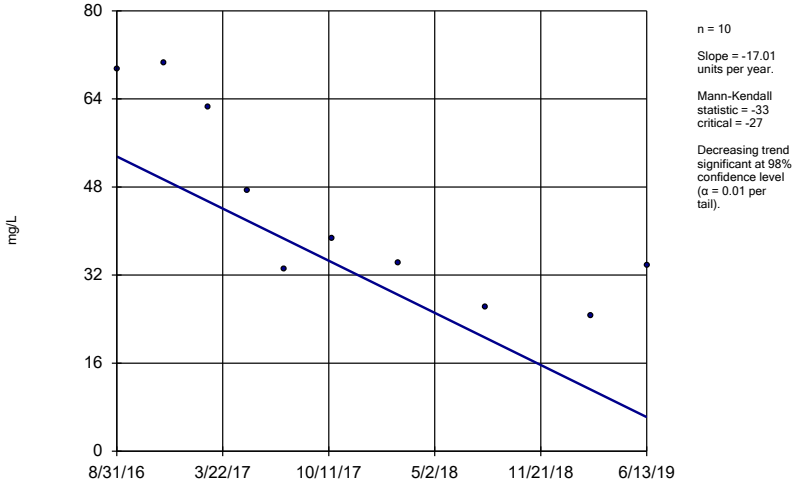
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWC-1R



n = 10

Slope = -17.01 units per year.

Mann-Kendall statistic = -33
critical = -27

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

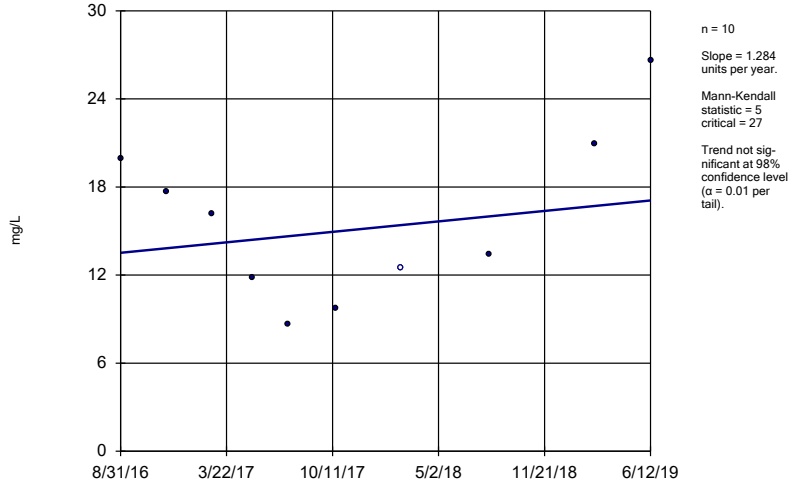
Constituent: Calcium Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Sen's Slope Estimator

GWC-2R



n = 10

Slope = 1.284 units per year.

Mann-Kendall statistic = 5
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

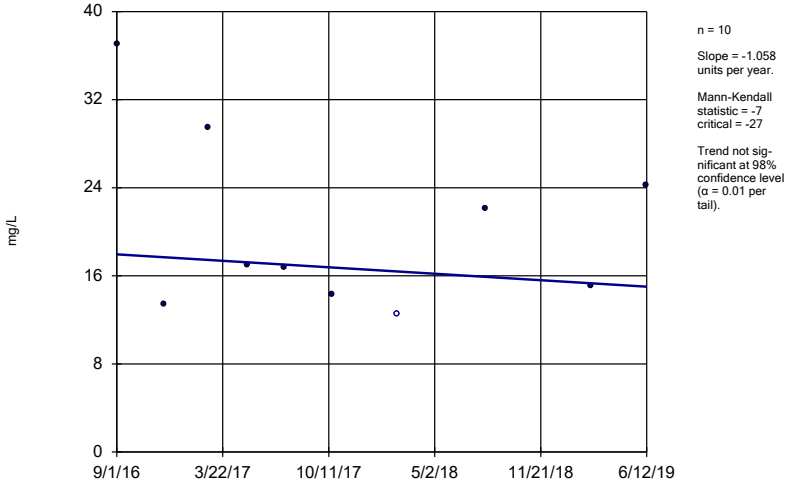
Constituent: Calcium Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Sen's Slope Estimator

GWC-4R



n = 10

Slope = -1.058 units per year.

Mann-Kendall statistic = -7
critical = -27

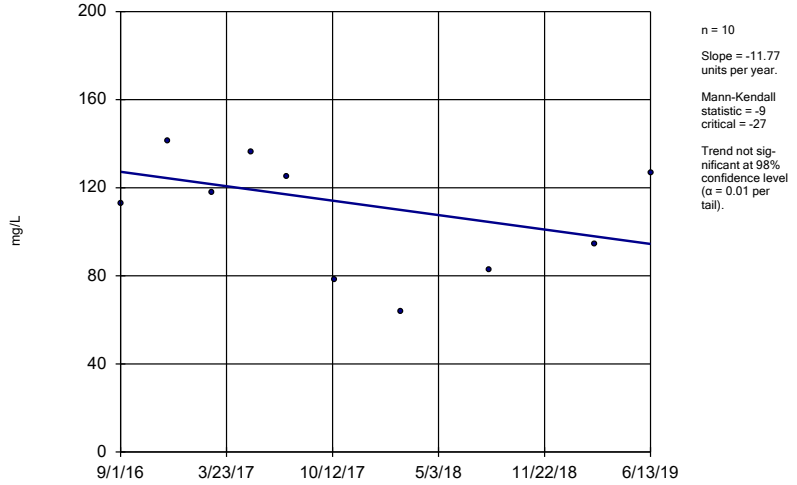
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWC-5R



n = 10

Slope = -11.77 units per year.

Mann-Kendall statistic = -9
critical = -27

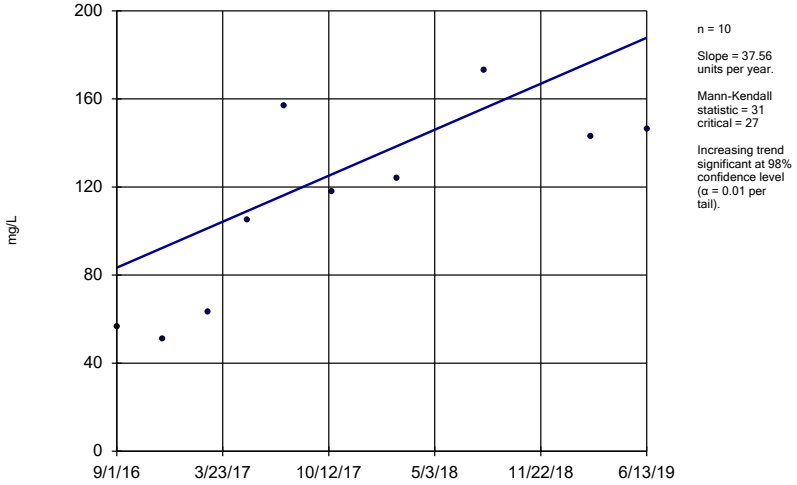
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWC-6R



n = 10

Slope = 37.56 units per year.

Mann-Kendall statistic = 31
critical = 27

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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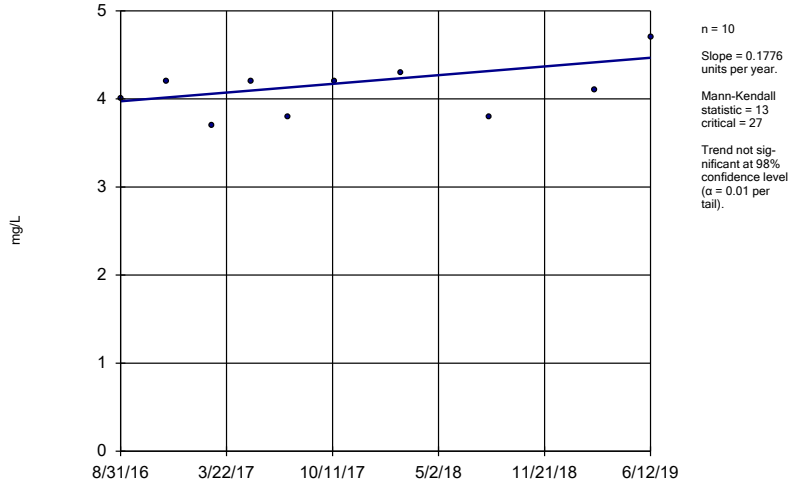
Sen's Slope Estimator

GWA-2 (bg)



n = 10

Slope = 0.1776 units per year.

Mann-Kendall statistic = 13
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

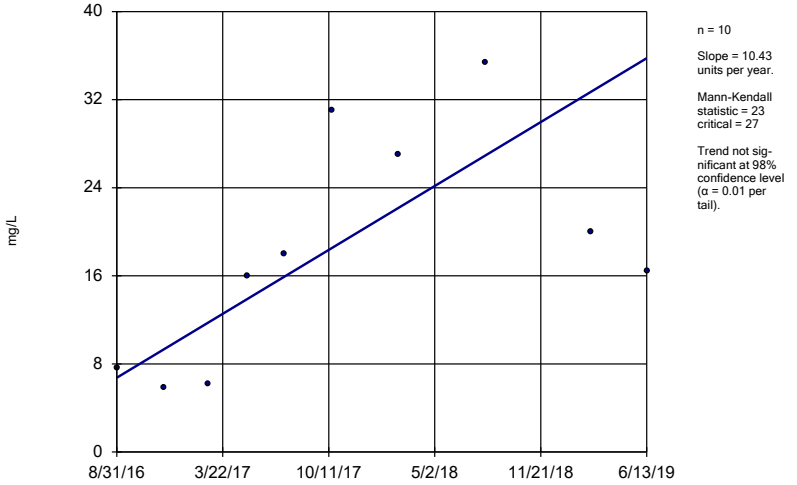
Constituent: Chloride Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-1R



n = 10

Slope = 10.43 units per year.

Mann-Kendall statistic = 23
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

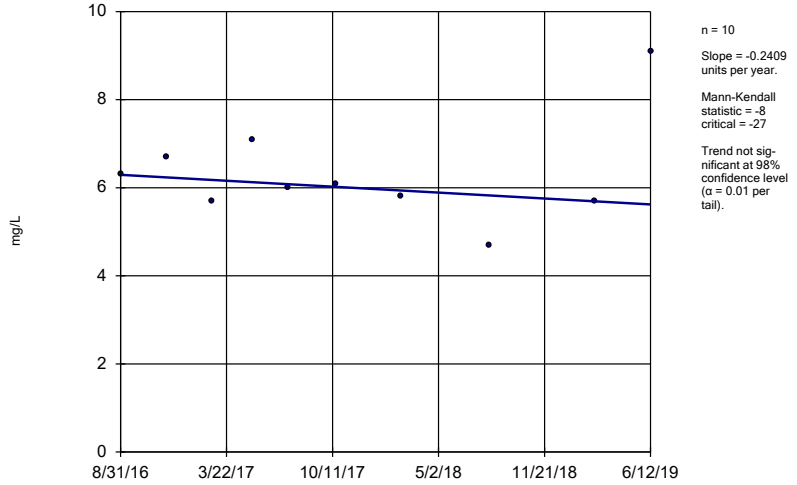
Constituent: Chloride Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-2R



n = 10

Slope = -0.2409 units per year.

Mann-Kendall statistic = -8
critical = -27

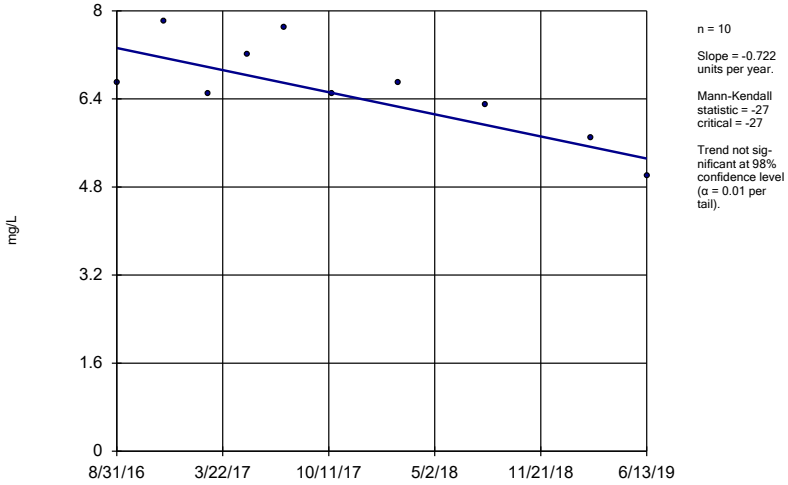
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWC-3R



n = 10

Slope = -0.722 units per year.

Mann-Kendall statistic = -27
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

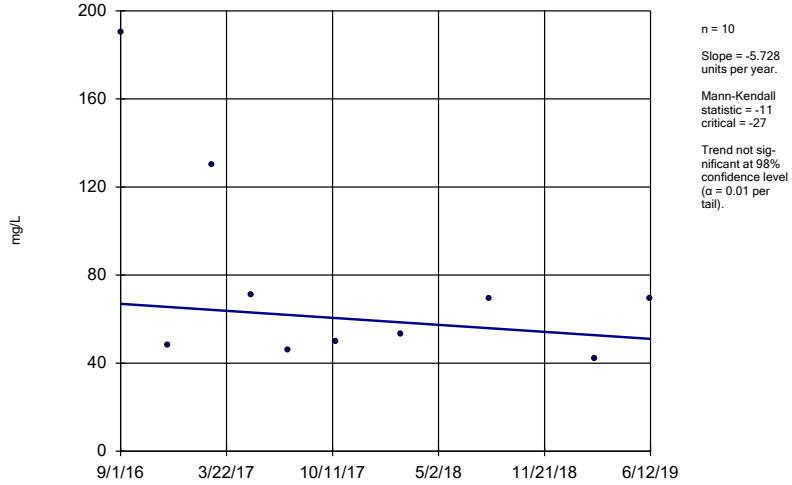
Constituent: Chloride Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-4R



n = 10

Slope = -5.728 units per year.

Mann-Kendall statistic = -11
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

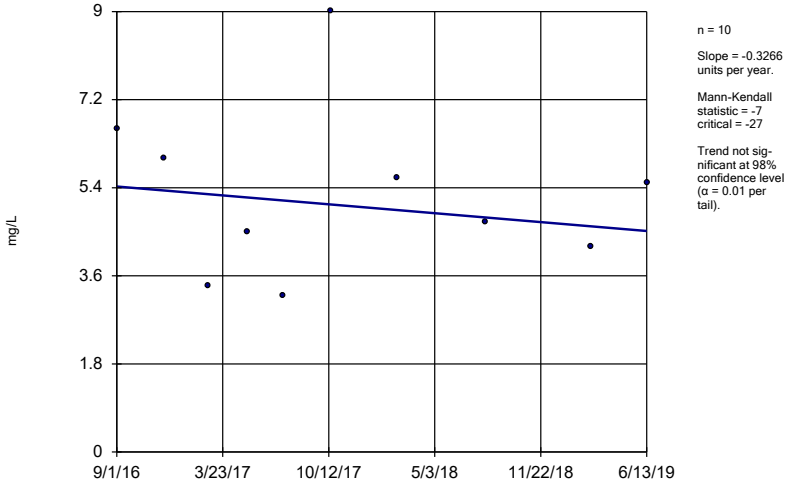
Constituent: Chloride Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-5R



n = 10

Slope = -0.3266 units per year.

Mann-Kendall statistic = -7
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

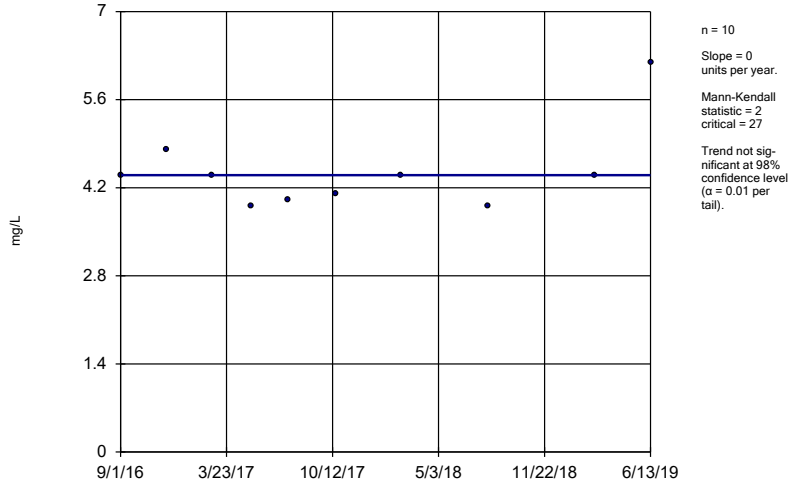
Constituent: Chloride Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-6R



n = 10

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

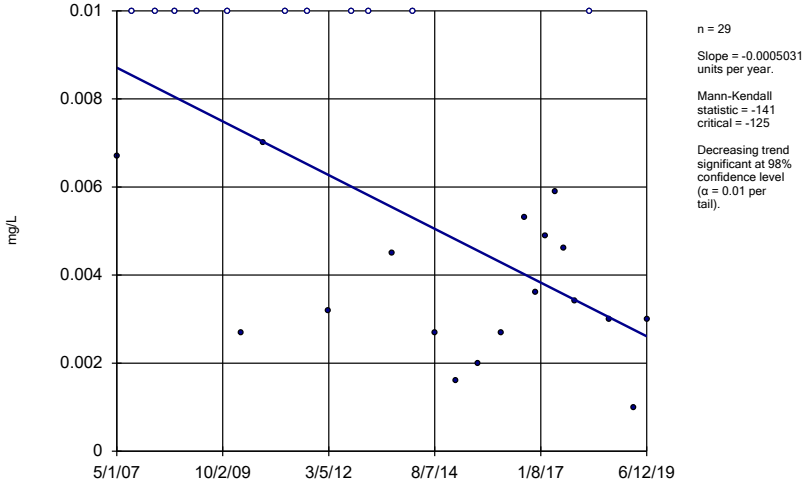
Constituent: Chloride Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-2 (bg)



n = 29

Slope = -0.0005031 units per year.

Mann-Kendall statistic = -141
critical = -125

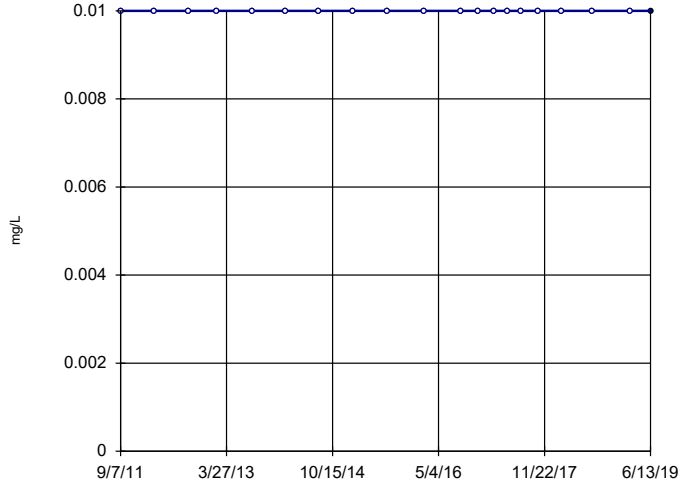
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Analysis Run 8/27/2019 1:58 PM View: Trend Test
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

GWC-3R



n = 20

Slope = 0 units per year.

Mann-Kendall statistic = 0
critical = 73

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Cobalt Analysis Run 8/27/2019 1:58 PM View: Trend Test
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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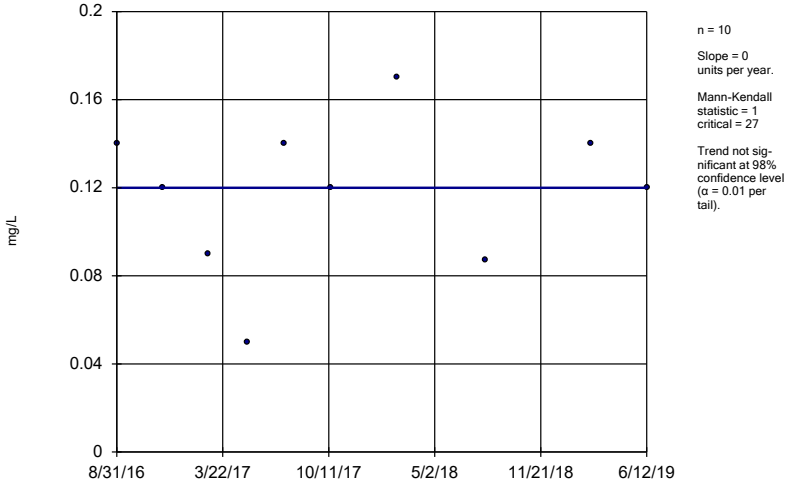
Sen's Slope Estimator

GWA-2 (bg)



n = 10

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 27

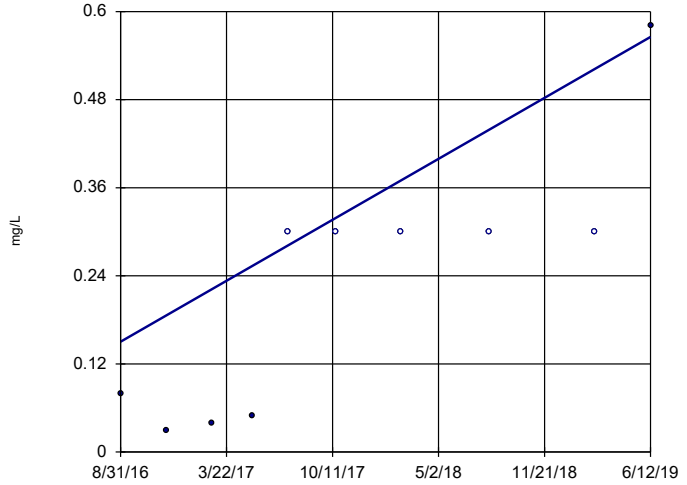
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 8/27/2019 1:58 PM View: Trend Test
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

GWC-2R



n = 10

Slope = 0.1493 units per year.

Mann-Kendall statistic = 29
critical = 27

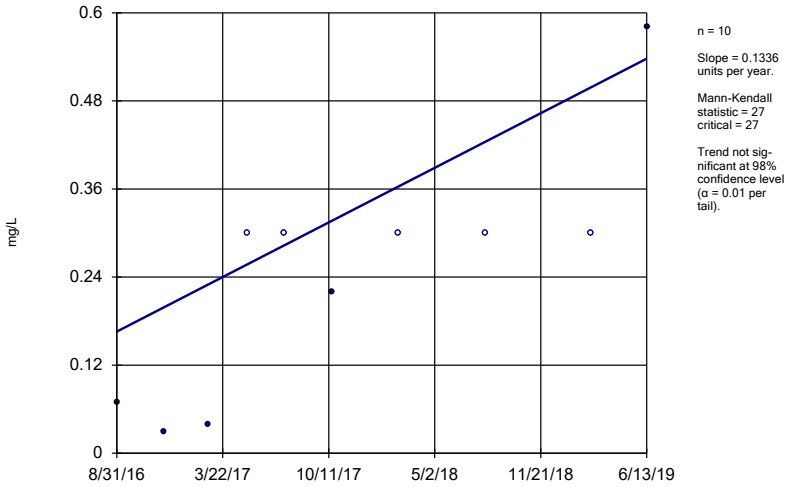
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 8/27/2019 1:58 PM View: Trend Test
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Hollow symbols indicate censored values.

Sen's Slope Estimator

GWC-3R



n = 10

Slope = 0.1336 units per year.

Mann-Kendall statistic = 27
critical = 27

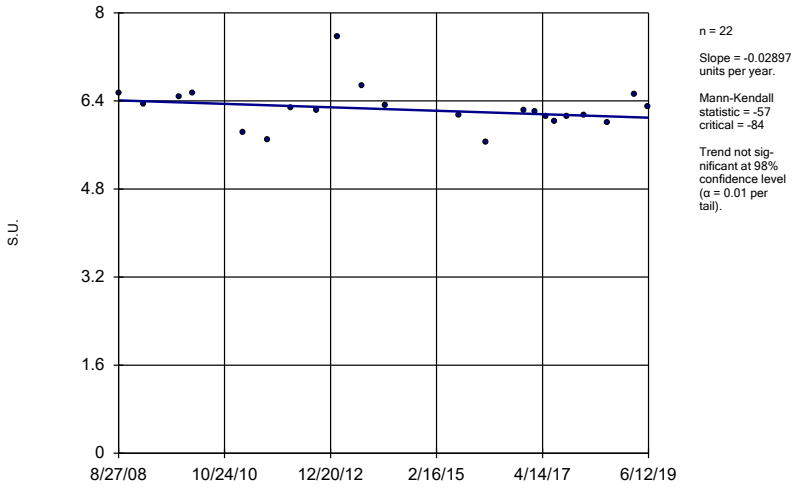
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWA-2 (bg)



n = 22

Slope = -0.02897 units per year.

Mann-Kendall statistic = -57
critical = -84

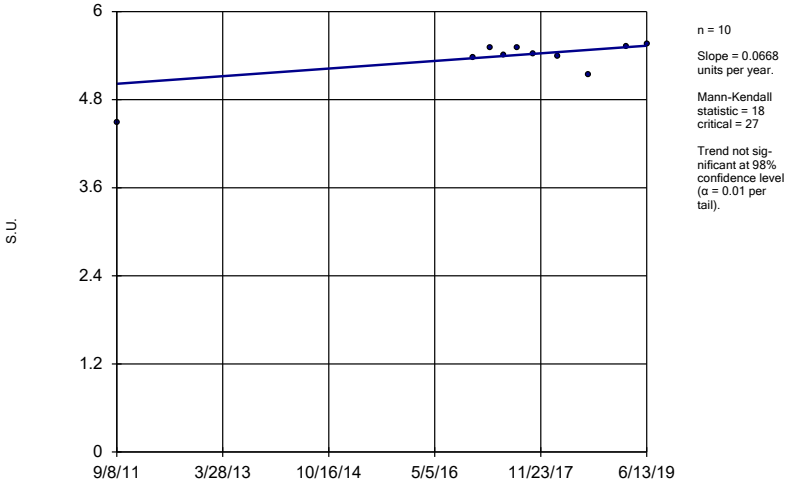
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWC-1R



n = 10

Slope = 0.0668 units per year.

Mann-Kendall statistic = 18
critical = 27

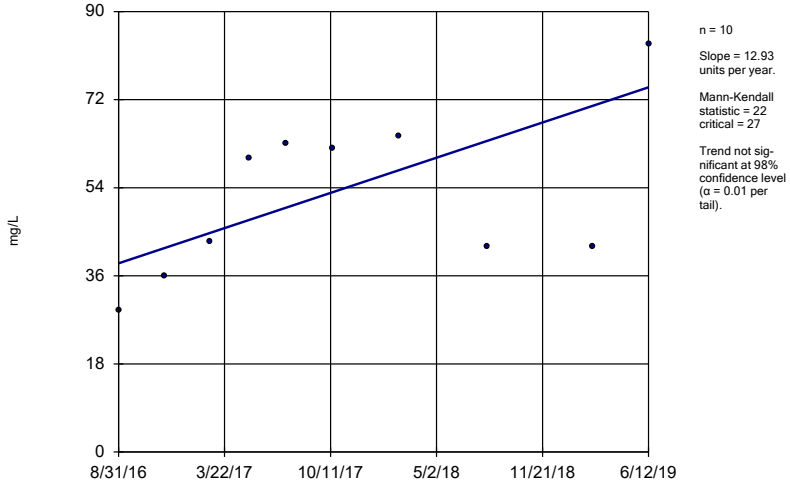
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWA-2 (bg)



n = 10

Slope = 12.93 units per year.

Mann-Kendall statistic = 22
critical = 27

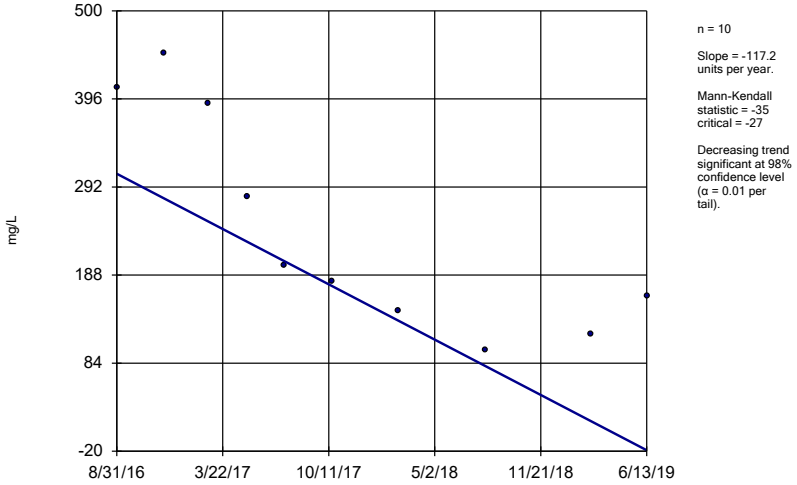
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWC-1R



n = 10

Slope = -117.2 units per year.

Mann-Kendall statistic = -35
critical = -27

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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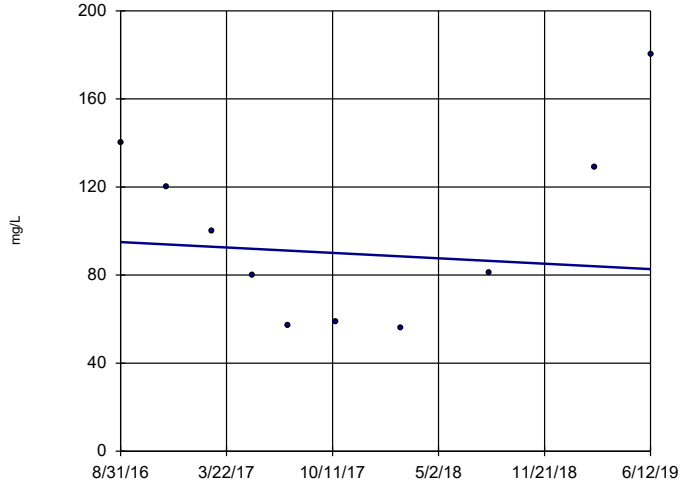
Sen's Slope Estimator

GWC-2R



n = 10

Slope = -4.417 units per year.

Mann-Kendall statistic = -3
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

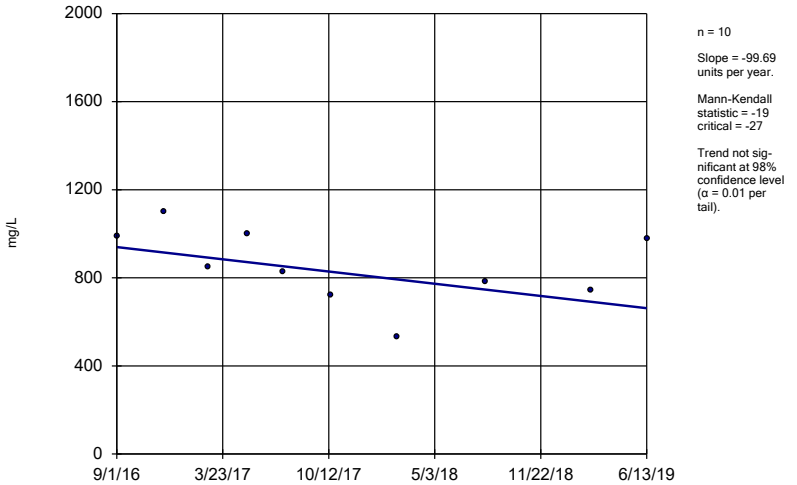
Constituent: Sulfate Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-5R



n = 10

Slope = -99.69 units per year.

Mann-Kendall statistic = -19
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

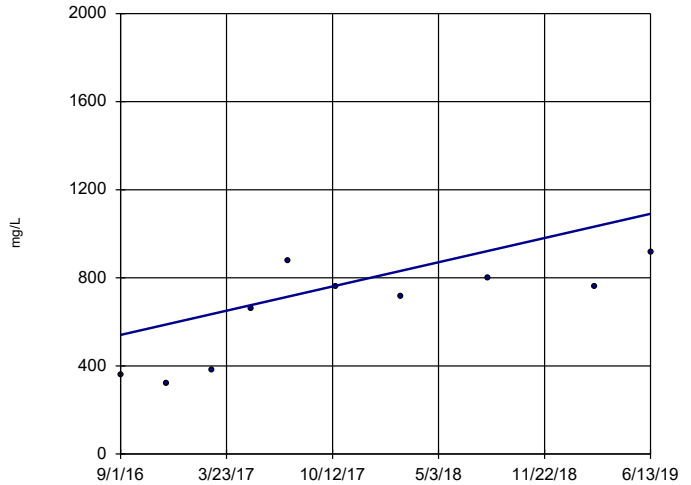
Constituent: Sulfate Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-6R



n = 10

Slope = 197.7 units per year.

Mann-Kendall statistic = 31
critical = 27

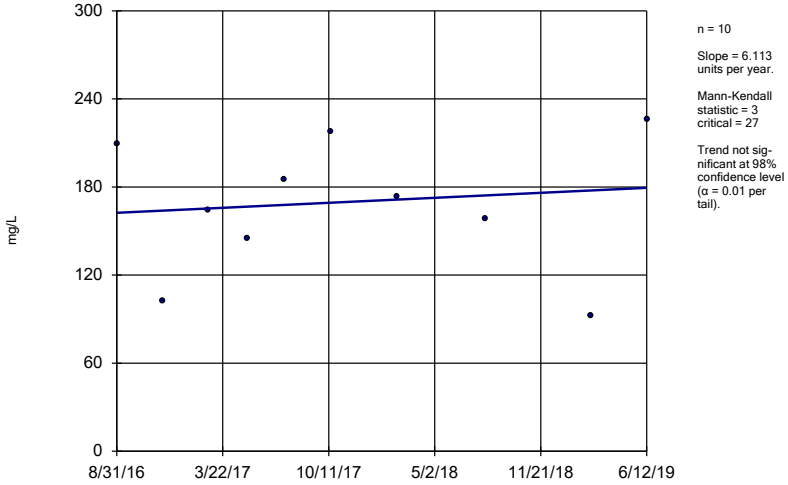
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWA-2 (bg)



n = 10

Slope = 6.113 units per year.

Mann-Kendall statistic = 3 critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

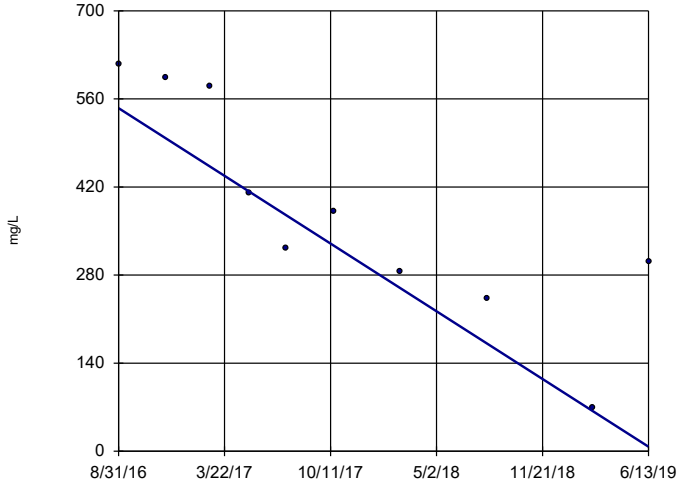
Constituent: TDS Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-1R



n = 10

Slope = -193.4 units per year.

Mann-Kendall statistic = -37 critical = -27

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

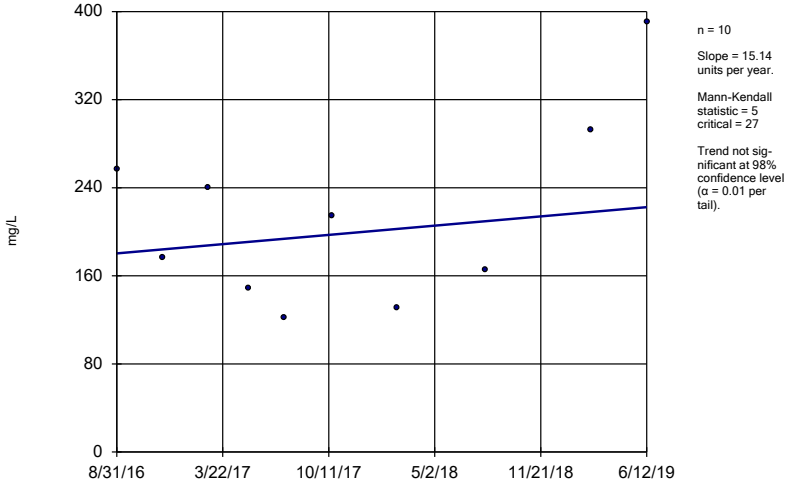
Constituent: TDS Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-2R



n = 10

Slope = 15.14 units per year.

Mann-Kendall statistic = 5 critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

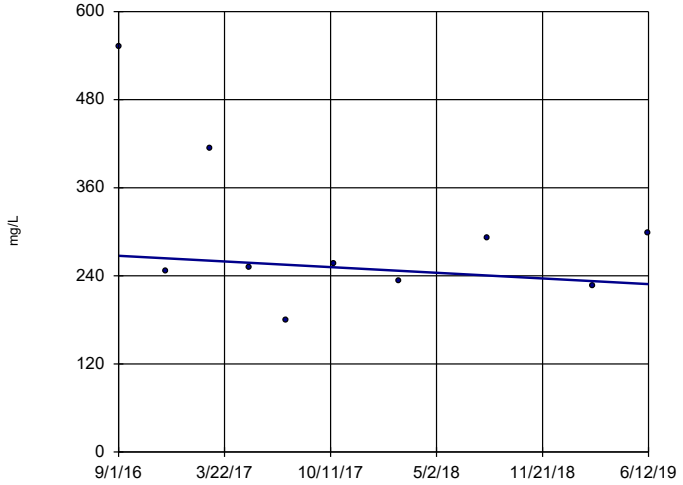
Constituent: TDS Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-4R



n = 10

Slope = -13.89 units per year.

Mann-Kendall statistic = -7 critical = -27

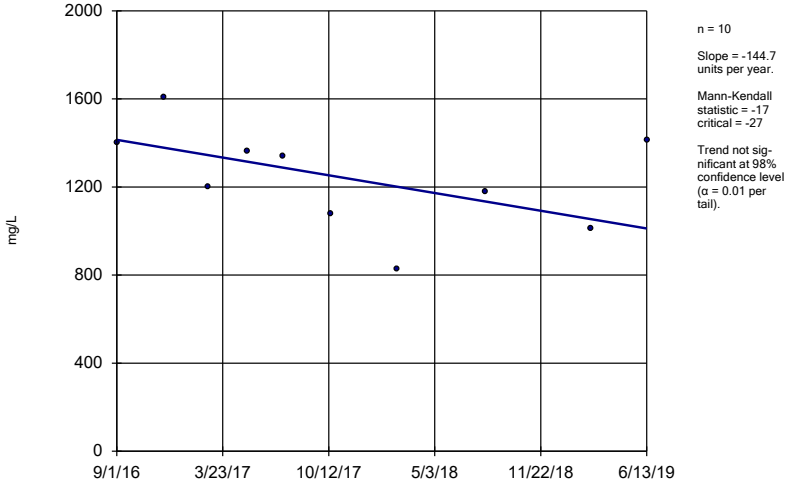
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: TDS Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

GWC-5R



n = 10

Slope = -144.7 units per year.

Mann-Kendall statistic = -17
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

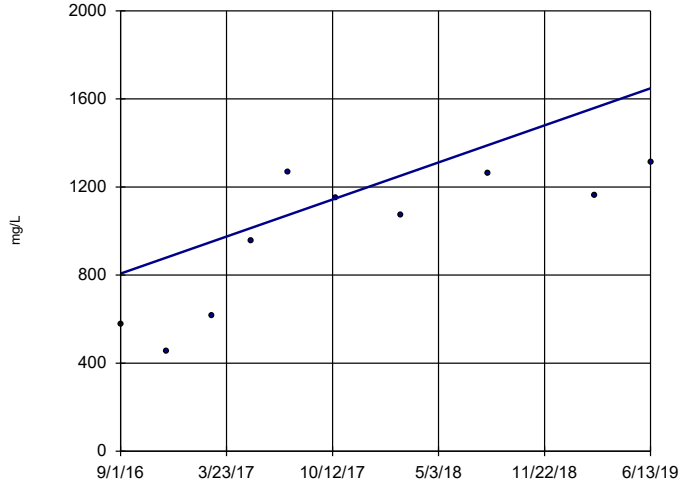
Constituent: TDS Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG

Sen's Slope Estimator

GWC-6R



n = 10

Slope = 302.4 units per year.

Mann-Kendall statistic = 31
critical = 27

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: TDS Analysis Run 8/27/2019 1:58 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sen's Slope Estimator

Constituent: Boron, Calcium Analysis Run 8/27/2019 2:00 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-4R	GWA-2 (bg)
8/31/2016	0.0315 (J)	0.0553 (J)		9.31
9/1/2016			3.25	
11/28/2016	0.0095 (J)			9.47 (B)
11/29/2016		0.0149 (J)		
11/30/2016			0.813	
2/22/2017	<0.04			10.4
2/23/2017		0.0082 (J)		
2/24/2017			2.53	
5/8/2017	0.0084 (J)			14.2
5/9/2017		0.0097 (J)		
5/10/2017			1.22	
7/17/2017	0.0092 (J)			14.1
7/18/2017		0.0123 (J)	0.97	
10/16/2017	<0.04			13.6
10/17/2017		0.0513	0.804	
2/19/2018	<0.04			<25
2/20/2018			1.01	
2/21/2018		0.0378 (J)		
8/6/2018	<0.04			11.4 (J)
8/7/2018		0.043		
8/8/2018			1.3	
2/25/2019	<0.04			12.7 (J)
2/26/2019		0.062	0.75	
6/12/2019	<0.04		1.5	18.9
6/13/2019		0.057		

Sen's Slope Estimator

Constituent: Calcium Analysis Run 8/27/2019 2:00 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-2R	GWC-4R	GWC-5R
8/31/2016	69.4	19.9		
9/1/2016			37.1	113
11/28/2016		17.7 (B)		
11/29/2016	70.6 (B)			
11/30/2016			13.4 (B)	
12/1/2016				141 (B)
2/22/2017		16.2		
2/23/2017	62.4			
2/24/2017			29.5	118
5/9/2017	47.4			
5/10/2017		11.8	17	136
7/17/2017				125
7/18/2017	33.2	8.69	16.8	
10/16/2017				78.2
10/17/2017	38.7	9.77	14.3	
2/20/2018		<25	<25	
2/21/2018	34.3			64
8/7/2018	26.2			83
8/8/2018		13.4 (J)	22.1 (J)	
2/26/2019	24.7 (J)	20.9 (J)	15.1 (J)	94.4
6/12/2019		26.6	24.2	
6/13/2019	33.8			127

Sen's Slope Estimator

Constituent: Calcium, Chloride Analysis Run 8/27/2019 2:00 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-6R	GWA-2 (bg)	GWC-1R	GWC-2R
8/31/2016		4	7.6	6.3
9/1/2016	56.8			
11/28/2016		4.2		6.7
11/29/2016	50.7 (B)		5.8	
2/22/2017		3.7		5.7
2/23/2017	63.5		6.2	
5/8/2017		4.2		
5/9/2017			16	
5/10/2017	105			7.1
7/17/2017		3.8		
7/18/2017	157		18	6
10/16/2017		4.2		
10/17/2017			31	6.1
10/18/2017	118			
2/19/2018	124	4.3		
2/20/2018				5.8
2/21/2018			27	
8/6/2018	173	3.8		
8/7/2018			35.4	
8/8/2018				4.7
2/25/2019	143	4.1		
2/26/2019			20	5.7
6/12/2019		4.7		9.1
6/13/2019	146		16.4	

Sen's Slope Estimator

Constituent: Chloride Analysis Run 8/27/2019 2:00 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWC-4R	GWC-5R	GWC-6R
8/31/2016	6.7			
9/1/2016		190	6.6	4.4
11/29/2016				4.8
11/30/2016	7.8	48		
12/1/2016			6	
2/23/2017	6.5			4.4
2/24/2017		130	3.4	
5/9/2017	7.2			
5/10/2017		71	4.5	3.9
7/17/2017			3.2	
7/18/2017	7.7	46		4
10/16/2017			9	
10/17/2017		50		
10/18/2017	6.5			4.1
2/19/2018				4.4
2/20/2018		53.1		
2/21/2018	6.7		5.6	
8/6/2018				3.9
8/7/2018	6.3		4.7	
8/8/2018		69.3		
2/25/2019				4.4
2/26/2019	5.7	42.2	4.2	
6/12/2019		69.5		
6/13/2019	5		5.5	6.2

Sen's Slope Estimator

Constituent: Cobalt, Fluoride Analysis Run 8/27/2019 2:00 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-3R	GWA-2 (bg)	GWC-2R
5/1/2007	0.0067			
9/11/2007	<0.01			
3/20/2008	<0.01			
8/27/2008	<0.01			
3/3/2009	<0.01			
11/18/2009	<0.01			
3/3/2010	0.0027			
9/8/2010	0.007			
3/10/2011	<0.01			
9/7/2011		<0.01		
9/8/2011	<0.01			
3/5/2012	0.0032	<0.01		
9/5/2012		<0.01		
9/10/2012	<0.01			
2/6/2013	<0.01	<0.01		
8/12/2013	0.0045			
8/13/2013		<0.01		
2/5/2014	<0.01	<0.01		
8/4/2014		<0.01		
8/5/2014	0.0027			
2/3/2015		<0.01		
2/4/2015	0.0016			
8/3/2015	0.002	<0.01 (D)		
2/16/2016	0.0027	<0.01		
8/31/2016	0.0053 (J)	<0.01	0.14 (J)	0.08 (J)
11/28/2016	0.0036 (J)		0.12 (J)	0.03 (J)
11/30/2016		<0.01		
2/22/2017	0.0049 (J)		0.09 (J)	0.04 (J)
2/23/2017		<0.01		
5/8/2017	0.0059 (J)		0.05 (J)	
5/9/2017		<0.01		
5/10/2017				0.05 (J)
7/17/2017	0.0046 (J)		0.14 (J)	
7/18/2017		<0.01		<0.3
10/16/2017	0.0034 (J)		0.12 (J)	
10/17/2017				<0.3
10/18/2017		<0.01		
2/19/2018	<0.01		0.17	
2/20/2018				<0.3
2/21/2018		<0.01		
8/6/2018	0.003 (J)		0.087 (J)	
8/7/2018		<0.01		
8/8/2018				<0.3
2/25/2019	0.001 (J)		0.14 (J)	
2/26/2019		<0.01		<0.3
6/12/2019	0.003 (J)		0.12 (J)	0.58
6/13/2019		0.01		

Sen's Slope Estimator

Constituent: Fluoride, pH, Sulfate Analysis Run 8/27/2019 2:00 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-3R	GWA-2 (bg)	GWC-1R	GWA-2 (bg)
8/27/2008		6.53		
3/3/2009		6.35		
11/18/2009		6.47		
3/3/2010		6.53		
3/10/2011		5.83		
9/8/2011		5.69	4.49	
3/5/2012		6.27		
9/10/2012		6.23		
2/6/2013		7.56		
8/12/2013		6.68		
2/5/2014		6.32		
8/3/2015		6.13 (D)		
2/16/2016		5.64		
8/31/2016	0.07 (J)			29
11/28/2016		6.23		36
11/29/2016			5.37	
11/30/2016	0.03 (J)			
2/22/2017		6.21		43
2/23/2017	0.04 (J)		5.5	
5/8/2017		6.12		60
5/9/2017	<0.3		5.41	
7/17/2017		6.03		63
7/18/2017	<0.3		5.5	
10/16/2017		6.12		62
10/17/2017			5.42	
10/18/2017	0.22 (J)			
2/19/2018		6.13		64.6
2/21/2018	<0.3		5.39	
8/6/2018		6.01		42.1
8/7/2018	<0.3		5.14	
2/25/2019		6.51		42.1
2/26/2019	<0.3		5.52	
6/12/2019		6.3		83.4
6/13/2019	0.58		5.55	

Sen's Slope Estimator

Constituent: Sulfate Analysis Run 8/27/2019 2:00 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-1R	GWC-2R	GWC-5R	GWC-6R
8/31/2016	410	140		
9/1/2016			990	360
11/28/2016		120		
11/29/2016	450			320
12/1/2016			1100	
2/22/2017		100		
2/23/2017	390			380
2/24/2017			850	
5/9/2017	280			
5/10/2017		80	1000	660
7/17/2017			830	
7/18/2017	200	57		880
10/16/2017			720	
10/17/2017	180	59		
10/18/2017				760
2/19/2018				718
2/20/2018		55.9		
2/21/2018	146		533	
8/6/2018				797
8/7/2018	100		784	
8/8/2018		81.1		
2/25/2019				763
2/26/2019	118	129	742	
6/12/2019		180		
6/13/2019	163		976	918

Sen's Slope Estimator

Constituent: TDS Analysis Run 8/27/2019 2:00 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWA-2 (bg)	GWC-1R	GWC-2R	GWC-4R
8/31/2016	209	616	257	
9/1/2016				553
11/28/2016	102		177	
11/29/2016		594		
11/30/2016				247 (B)
2/22/2017	164		240	
2/23/2017		581		
2/24/2017				414
5/8/2017	145			
5/9/2017		410		
5/10/2017			149	251
7/17/2017	185			
7/18/2017		322	122	179
10/16/2017	218			
10/17/2017		381	214	256
2/19/2018	173			
2/20/2018			131	233
2/21/2018		285		
8/6/2018	158			
8/7/2018		242		
8/8/2018			166	292
2/25/2019	92			
2/26/2019		69	293	226
6/12/2019	226		391	298
6/13/2019		301		

Sen's Slope Estimator

Constituent: TDS Analysis Run 8/27/2019 2:00 PM View: Trend Test

Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

	GWC-5R	GWC-6R
9/1/2016	1400	578
11/29/2016		455
12/1/2016	1610 (B)	
2/23/2017		614
2/24/2017	1200	
5/10/2017	1360	955
7/17/2017	1340	
7/18/2017		1270
10/16/2017	1080	
10/18/2017		1150
2/19/2018		1070
2/21/2018	830	
8/6/2018		1260
8/7/2018	1180	
2/25/2019		1160
2/26/2019	1010	
6/13/2019	1410	1310

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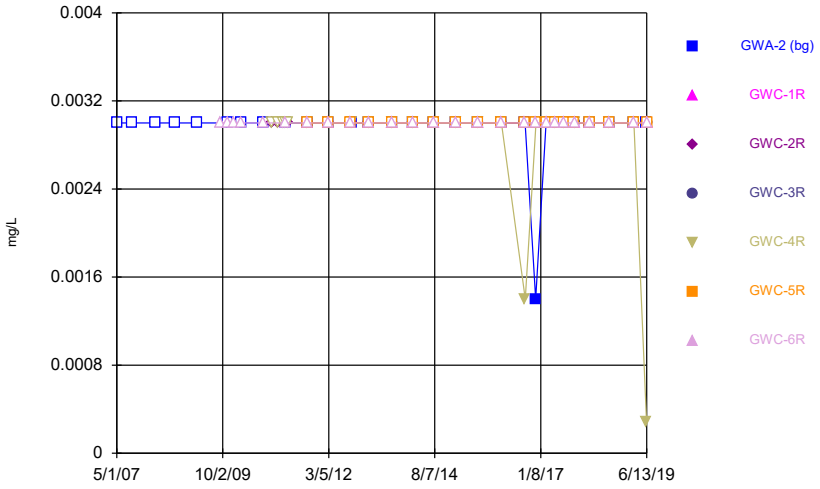
Time Series



Constituent: Antimony Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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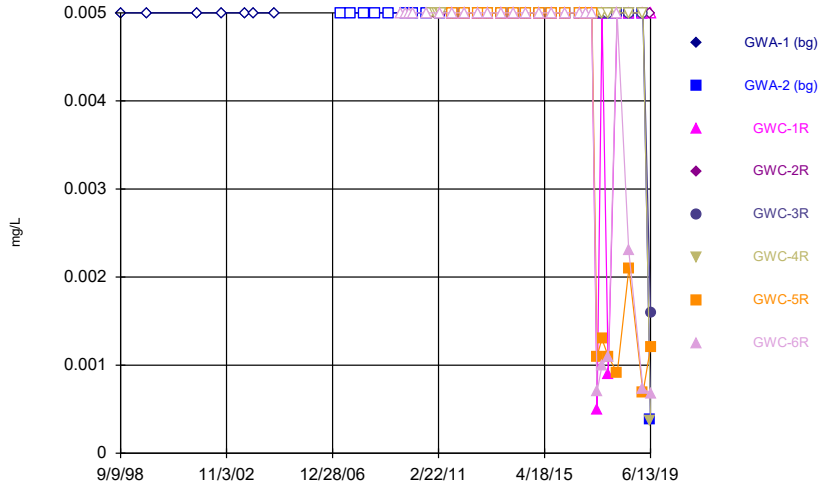
Time Series



Constituent: Arsenic Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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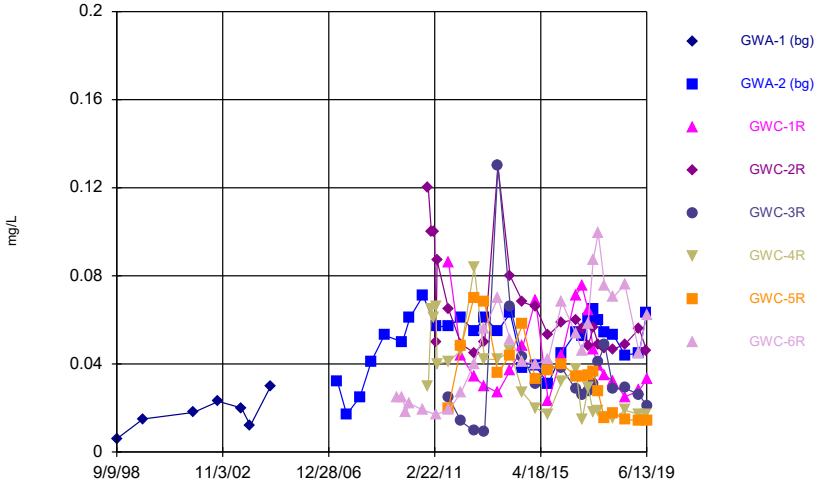
Time Series



Constituent: Barium Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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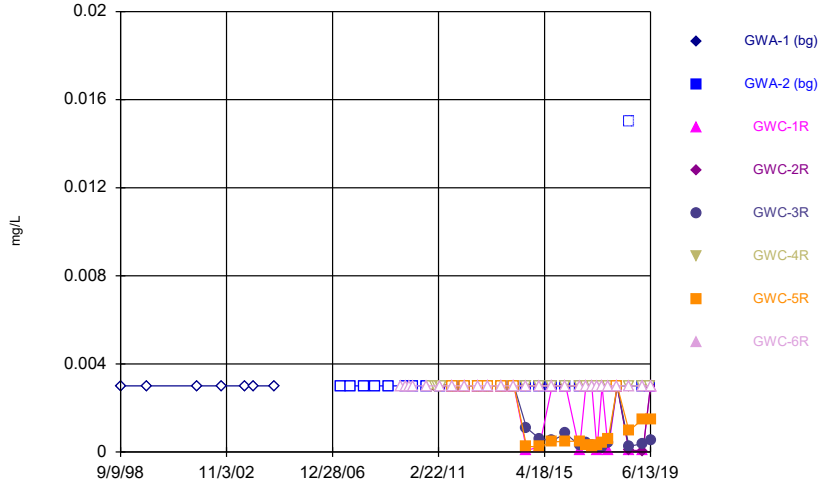

Constituent: Beryllium Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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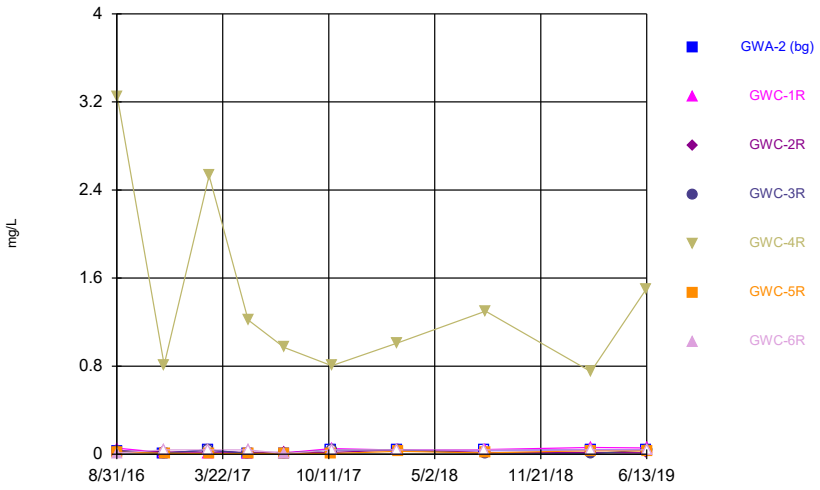

Constituent: Boron Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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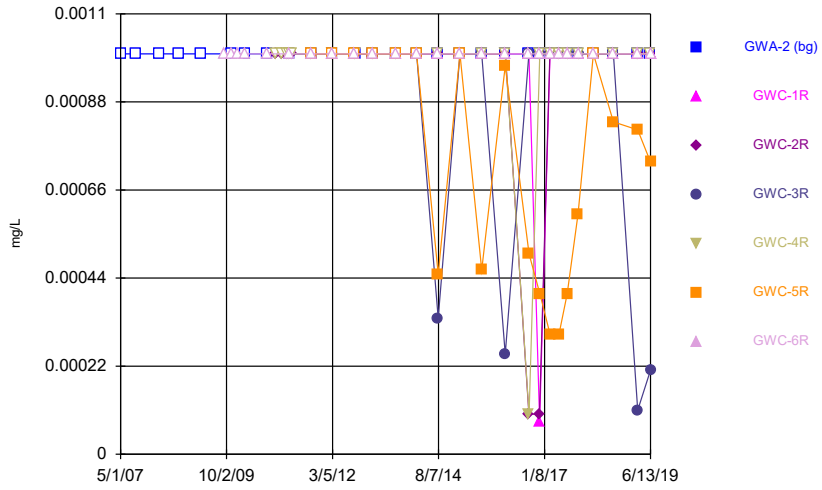

Constituent: Cadmium Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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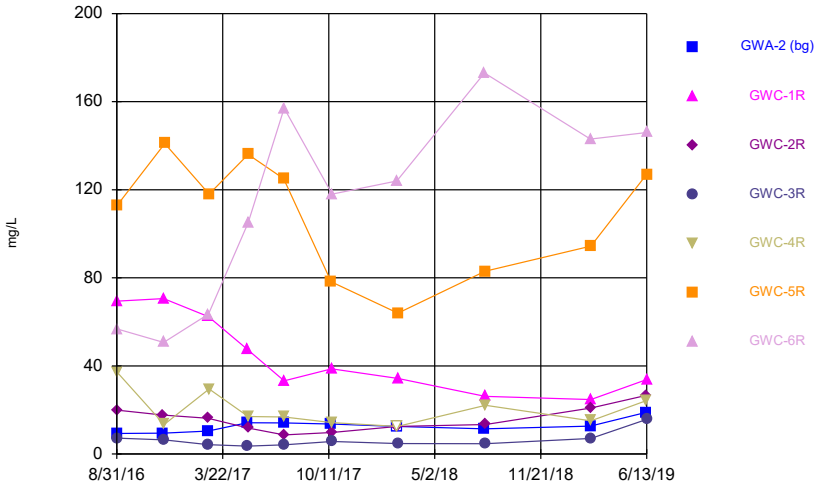

Constituent: Calcium Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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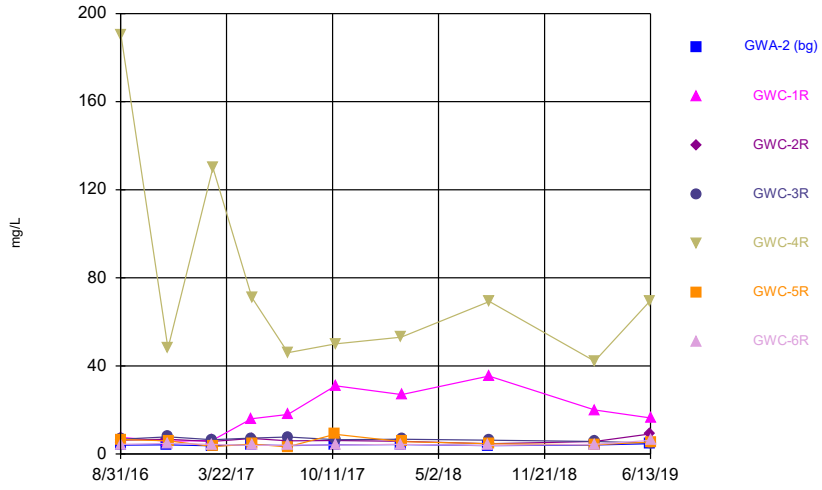
Time Series



Constituent: Chloride Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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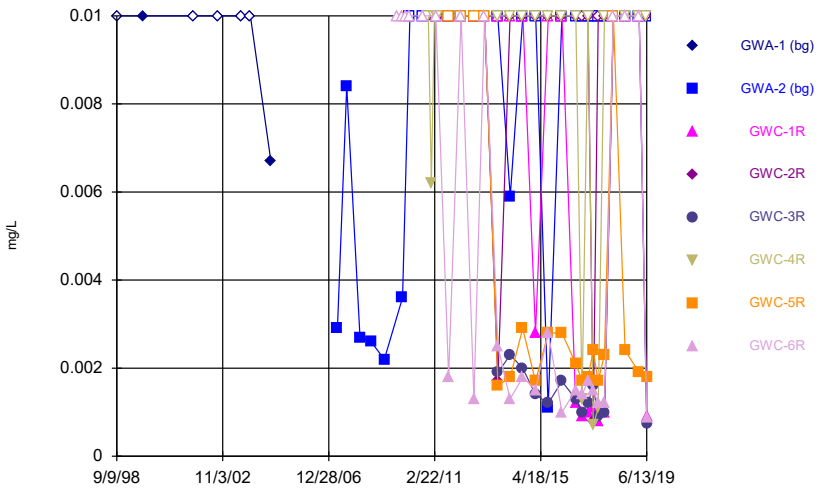

Constituent: Chromium Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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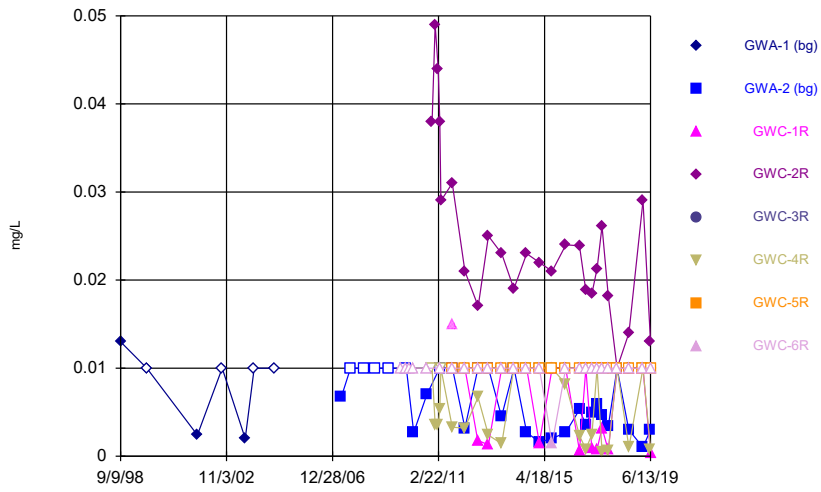

Constituent: Cobalt Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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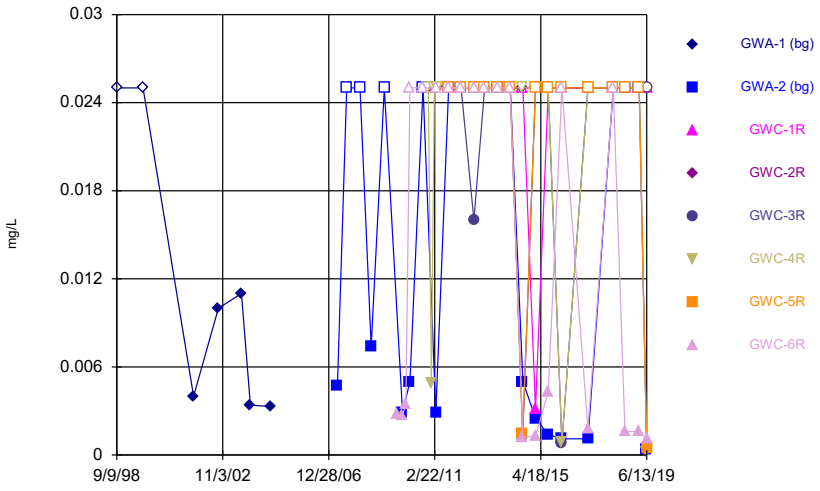

Constituent: Copper Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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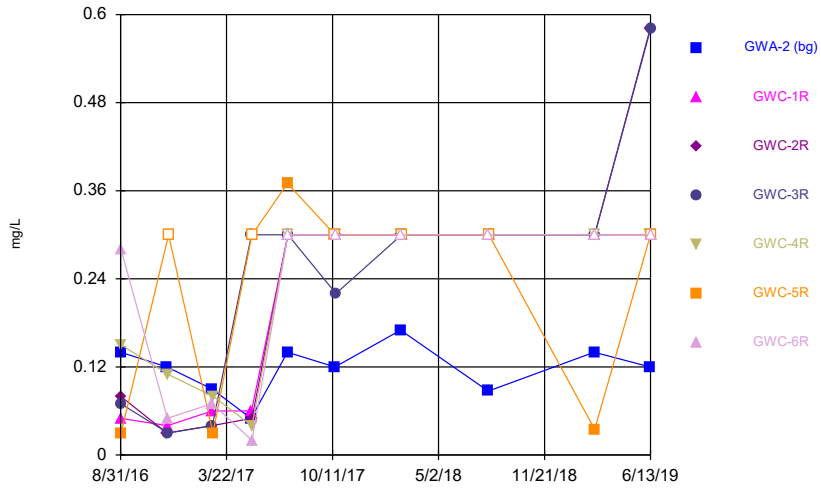

Constituent: Fluoride Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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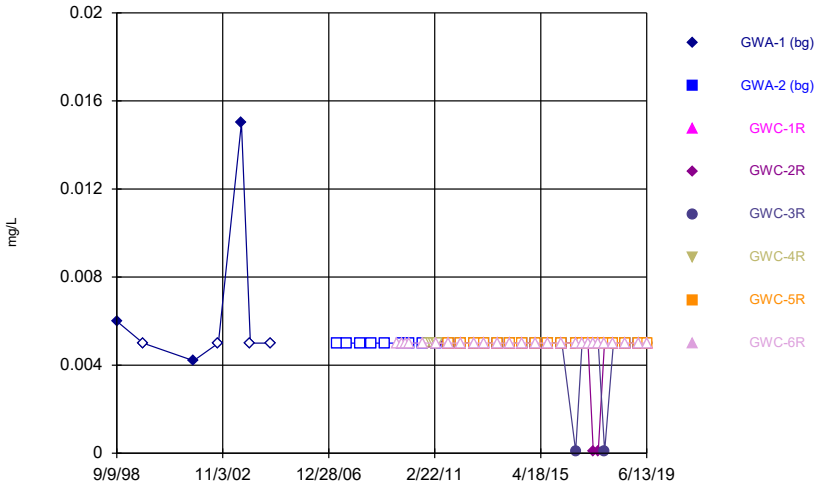

Constituent: Lead Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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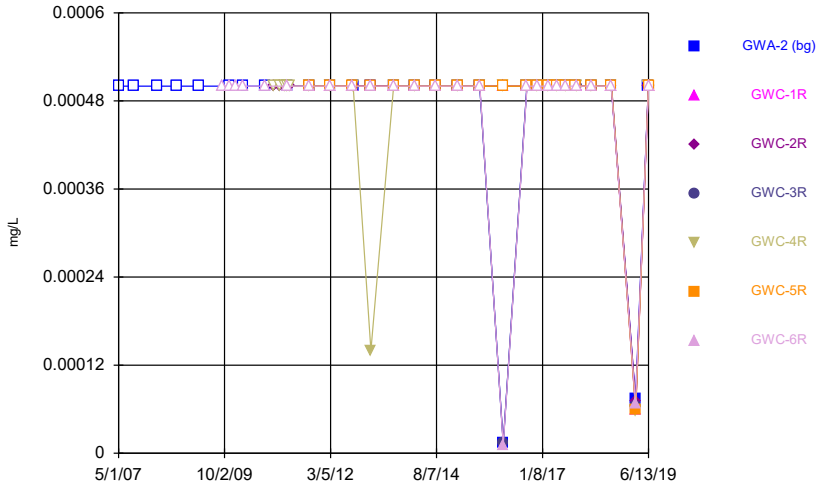

Constituent: Mercury Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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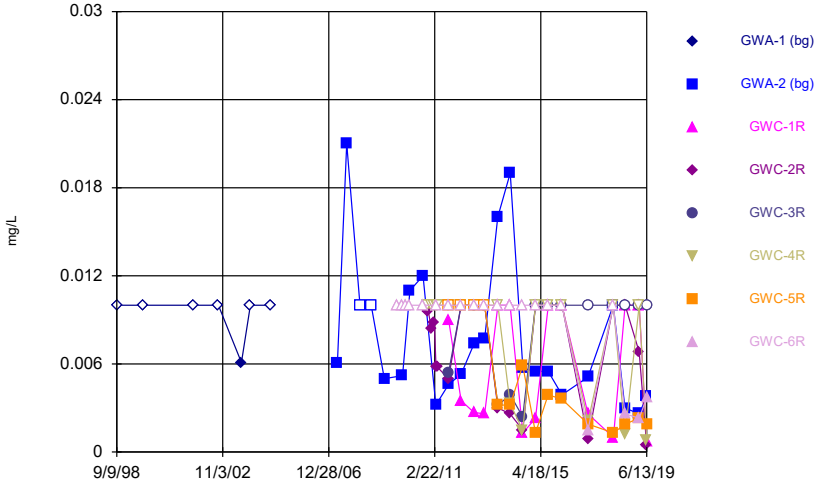

Constituent: Nickel Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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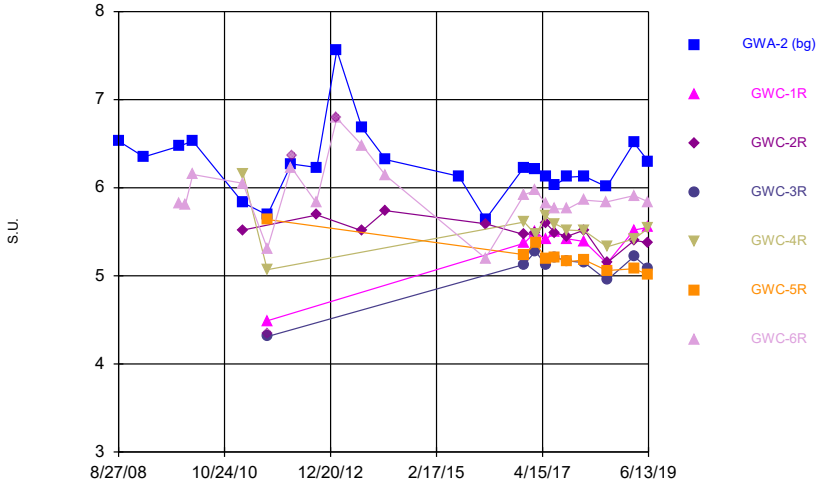
Time Series



Constituent: pH Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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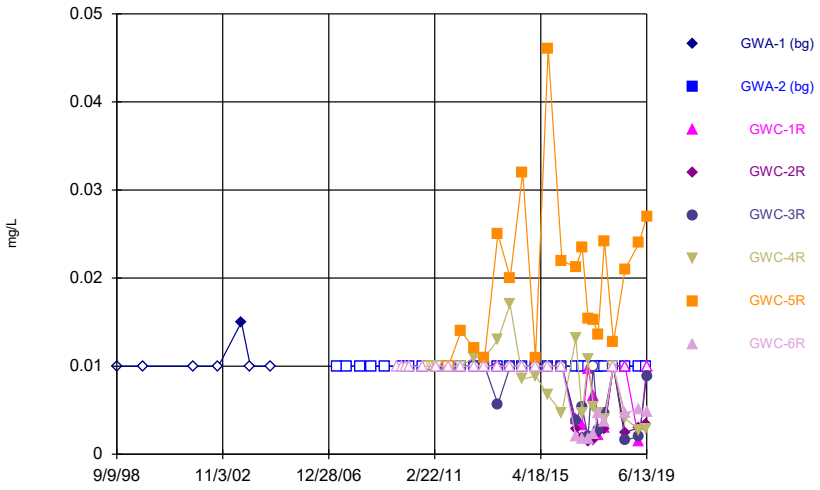
Hollow symbols indicate censored values.

Time Series



Constituent: Selenium Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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Hollow symbols indicate censored values.

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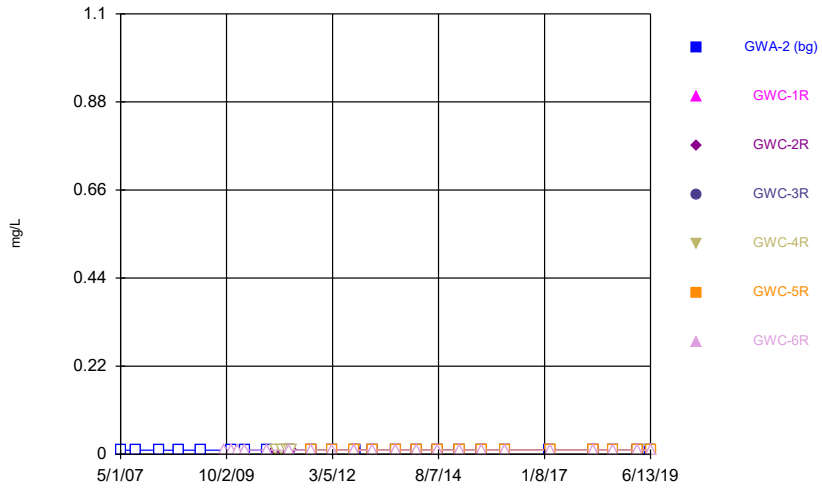

Constituent: Silver Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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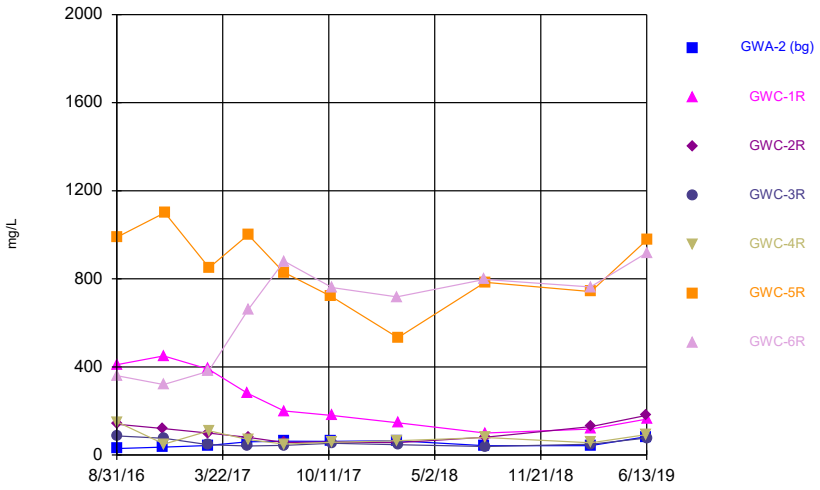
Time Series



Constituent: Sulfate Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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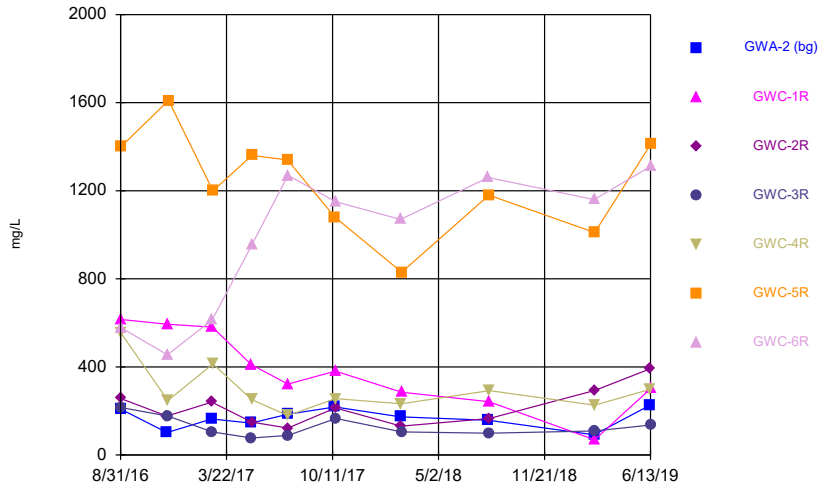
Time Series



Constituent: TDS Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

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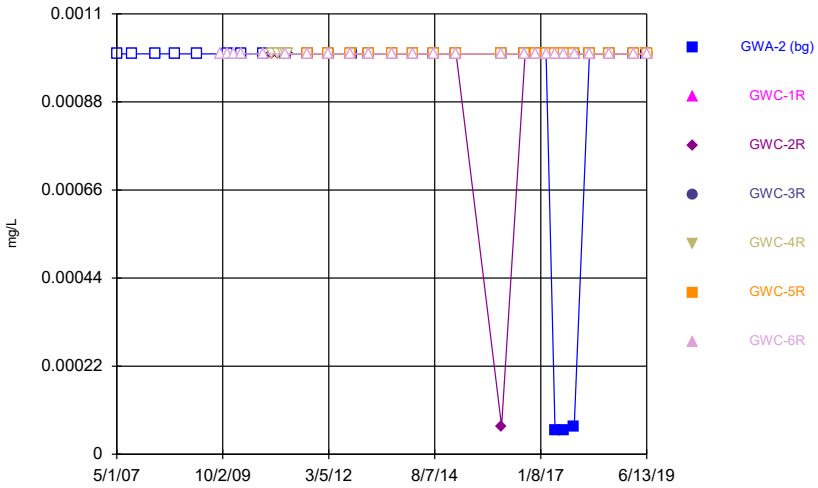
Hollow symbols indicate censored values.

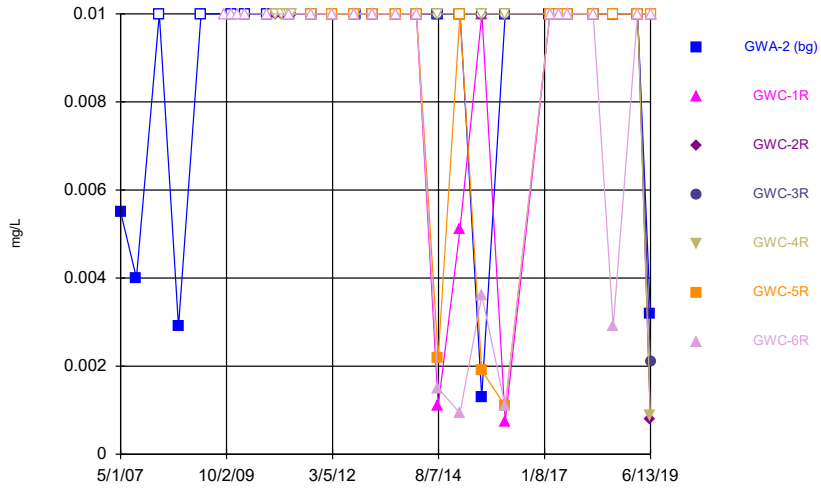
Time Series



Constituent: Thallium Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

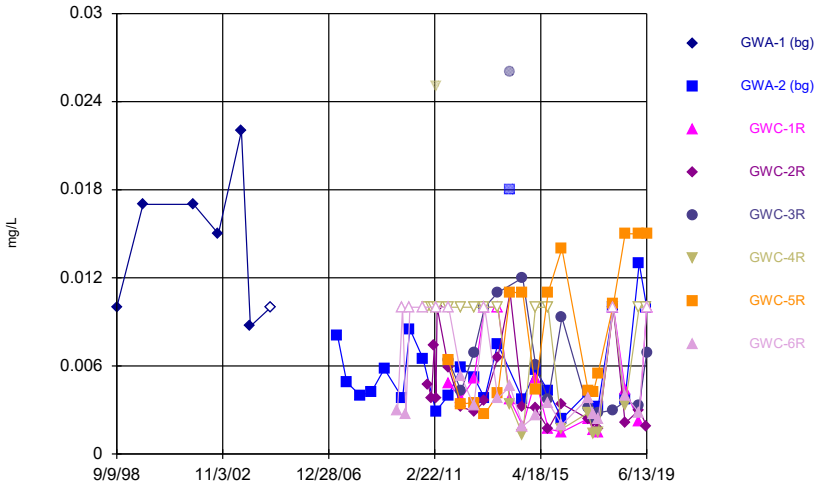
Time Series



Constituent: Vanadium Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill

Sanitas™ v.9.6.20 Sanitas software licensed to ACC. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Zinc Analysis Run 8/16/2019 10:30 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Gypsum Landfill