Georgia Power Company

Plant Yates – Ash Pond 1

Newnan, Georgia

Coweta County

2019 ANNUAL GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

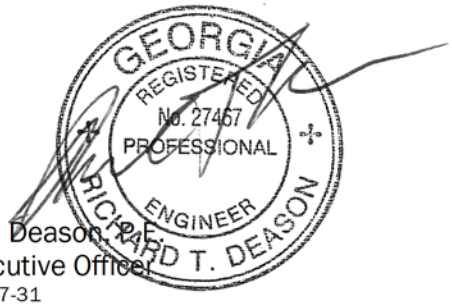
Atlantic Coast Consulting, Inc.

CERTIFICATION STATEMENT

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

ATLANTIC COAST CONSULTING, INC.

Evan B. Perry, P.G.
Project Manager



Richard T. Deason, P.E.
Chief Executive Officer
Date: 2019-07-31

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Appendices

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management 391-3-4-.10, Atlantic Coast Consulting, Inc. (ACC) has prepared this *2019 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at the Georgia Power Company (GPC) Plant Yates, Ash Pond 1 (AP-1). 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. For ease of reference, the US EPA CCR rules are cited within this report.

AP-1 ceased receiving waste prior to the effective date of the US EPA CCR rule promulgated in April 2015. A notification of intent to initiate closure of the inactive CCR surface impoundment was certified on December 7, 2015 and posted to GPC's website. Therefore, groundwater monitoring and reporting for AP-1 are being completed in accordance with the alternate schedule in § 257.100(e)(5) of the revised USEPA CCR rule (August 5, 2016).

Groundwater monitoring and reporting for CCR units is performed in accordance with the monitoring requirements § 257.90 through 257.91 and § 257.93 through 257.94 of the Federal CCR rule and the Georgia EPD rule 391-3-4-.10(6)(a)-(c). This report documents the activities completed to establish the groundwater monitoring program and actions through the first half of 2019 in accordance with § 257.90(e).

A permit application package for AP-1 was submitted to GA EPD in November 2018 and is currently under review. Groundwater monitoring has been initiated in order to meet GA EPD requirements. This report includes the background data and the initial detection monitoring data for AP-1.

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. AP-1 was closed by-removal; the CCR material was removed from AP-1 to an onsite landfill. The former unit no longer impounds surface water.

1.2 Regional Geology and Hydrogeologic Setting

Plant Yates is located in the Inner Piedmont 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 only in 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 hydraulic conductivity at these locations typically ranges from 10^{-3} to 10^{-4} centimeters per second, based on multiple rising-head and falling-head slug tests. This indicates a fairly uniform medium across the saprolite and weathered rock horizon. The values from the field test fall within the standard range of hydraulic conductivity values associated with a silty sand.

1.3 Groundwater Monitoring Well Network and CCR Unit Description

Pursuant to § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at the CCR Unit AP-1. The monitoring system is designed to monitor groundwater passing the waste boundary of the CCR Units 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 1A, Monitoring Network Well Summary, and Table 1B, Non-Network Well Summary). The monitoring well network was certified by a Professional Engineer in Georgia on April 17, 2019, and the certification is maintained in the Operating Record pursuant to § 257.90(f)(6).

The CCR unit AP-1 was established along a topographically low area formed by an unnamed tributary. As typical of the Piedmont Physiographic Province, there is a high degree of connectivity between the overburden, partially weathered rock, fractured bedrock, and the materials comprise a single uppermost aquifer. Based on the site hydrogeology, the monitoring system is designed to monitor groundwater flow in the overburden, the transition-zone, and the upper bedrock as a single inter-connected aquifer system. Wells suffixed with an “S” are installed in overburden (saprolitic soil), an “I” indicates partially weathered rock (transition zone), and “D” indicates upper bedrock. The monitoring well network for the Site is provided on Figure 2.

2.0 GROUNDWATER MONITORING ACTIVITIES

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed through June 2019. Because this is the first Annual Groundwater Monitoring and Corrective Action Report submitted for AP-1, it also describes activities performed prior to June 2019 to establish the groundwater monitoring program. All groundwater sampling was performed in accordance with § 257.93. Samples were collected from each well in the certified monitoring system shown on Figure 2.

Pursuant to § 257.90(e)(3), Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed at Plant Yates AP-1.

2.1 Monitoring Well Installation/Maintenance

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

- A groundwater monitoring system for AP-1 as presented in Tables 1A and 1B.
- Dedicated QED bladder pumps for groundwater sampling.

The number, spacing, and depths of the groundwater monitoring wells were selected by a professional engineer (PE) based on the characterization of site-specific hydrogeologic conditions. Groundwater monitoring wells were designed to monitor the uppermost water-bearing zone. Monitoring well designations were determined based on measured groundwater levels at the site. Upgradient wells were installed at locations pursuant to § 257.91(a)(1). Downgradient monitoring wells were installed along the downgradient waste boundary pursuant to § 257.91(a)(2).

2.2 Detection Monitoring Program

In accordance with § 257.94(b), a detection monitoring program was implemented by collecting eight (8) background samples. In addition, a ninth round of groundwater samples were collected as the initial detection monitoring event.

2.2.1 Background Monitoring

A minimum of eight (8) independent samples were collected from the certified monitoring network and analyzed for the constituents listed in Appendix III and IV. A table summarizing the results for the well is included in Appendix A, Analytical Data Summary. Pursuant to § 257.90(e)(3), data reports for each sampling event are included in Appendix B, Laboratory Analytical and Field Sampling Reports.

2.2.2 Initial Detection Monitoring

Following completion of the eight independent sampling events, groundwater samples were collected March 27, 2019 and analyzed for Appendix III constituents as part of the first semi-annual detection monitoring event. A table summarizing the results for the well is included in Appendix A, Analytical Data Summary. Pursuant to § 257.90(e)(3), data reports for the March 2019 sampling event are included in Appendix B.

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 and piezometers at AP-1. 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, March 2019 Water Table Contour. The general direction of groundwater flow across the site is towards the west. The groundwater flow patterns observed during the March 2019 monitoring event is consistent with historical patterns.

The general 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

The general groundwater flow velocity calculated for the site based on hydraulic gradient, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979). Groundwater flow velocity has been calculated and is tabulated on Table 4, Groundwater Flow Velocity Calculations. The calculated flow velocity is 1.3 feet per day or 489 feet per year.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). With the exception of the first background event for YGWC-45 in which a peristaltic pump was used, purging and sampling was generally performed using a bladder pump. Dedicated bladder pumps were installed in each well following the second background monitoring event. 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). The peristaltic pump sample was 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, and dissolved oxygen) during well purging to verify stabilization prior to sampling. Turbidity was measured using a Hach 2100Q portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH
- ± 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 the analytical laboratory following chain-of-custody protocol. Stabilization logs for each well during each monitoring event are included in Appendix B.

3.3 Laboratory Analyses

Groundwater samples were collected for both Appendix III and Appendix IV parameters during background monitoring. Groundwater samples collected in March 2019 for the first detection monitoring event were analyzed for Appendix III monitoring parameters only. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix B.

Laboratory analyses were performed by Pace Analytical Services, LLC (Pace) of Peachtree Corners, Georgia and Greensburg, Pennsylvania. Pace is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintain 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 B.

3.4 Quality Assurance and Quality Control

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

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

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

4.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III groundwater monitoring data was performed on samples collected from the certified groundwater monitoring network pursuant to § 257.93 and according to the PE-certified statistical method for the multi-unit monitoring network. The statistical method used at the site was developed by Groundwater Stats Consulting, LLC (GSC), in accordance with 40 CFR § 257.93(f) 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. Subsequent detection monitoring results were compared to the statistical limits to determine if concentrations were statistically different from background.

4.1 Statistical Methods

The results of the statistical screening analysis determined that groundwater analytical data will be evaluated through use of interwell prediction limits, combined with a 1-of-2 resampling strategy, for parameters boron, calcium, chloride, pH, sulfate, and total dissolved solids (TDS). Using this method, upgradient well data are pooled to establish a background statistical limit. Data from the March 2019 detection monitoring event were compared to the statistical limit to determine whether any concentrations exceed background levels. When an initial statistically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier.

Fluoride data are evaluated through use of intrawell prediction limits, combined initially with the 1-of-2 resampling strategy. Using this method, background data from the parameter at the wells are used to establish a background statistical limit for fluoride at that well; therefore, fluoride will have a different statistical limit at each well. Data from the March 2019 detection monitoring event are compared to the statistical limit to determine whether any concentrations exceed background levels. When an SSI or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier.

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

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

- Statistical analyses are not performed on analytes containing 100% non-detects (US EPA Unified Guidance, 2009, Chapter 6).
- When data contain less than 15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

The Sanitas Groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations and guidance as recommended in the Unified Guidance (US EPA, 2009) document. A summary of the statistical methodology used at the Site for routine groundwater monitoring is provided in Table 5, Summary of Statistical Methods.

4.2 Statistical Analyses Results

Analytical data from the initial detection monitoring event in March 2019 at AP-1 was statistically analyzed in accordance with the PE-certified 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 C, Statistical Analyses.

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

- Boron: YGWC-44, YGWC-45, YGWC-46
- Calcium: YGWC-44, YGWC-45, YGWC-46
- Chloride: YGWC-44, YGWC-46
- pH: YGWC-44, YGWC-45, YGWC-46
- Sulfate: YGWC-45, YGWC-46
- TDS: YGWC-45, YGWC-46

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

4.3 Appendix IV Background Data

Pursuant to § 257.95, Appendix IV groundwater quality data will be statistically analyzed and compared to groundwater protection standards if assessment monitoring is implemented.

5.0 MONITORING PROGRAM STATUS

Plant Yates AP-1 is in detection monitoring. SSIs of Appendix III parameters have been identified. Pursuant to § 257.94(e)(1), Plant Yates has 90 days from the date of determination to either (1) prepare a demonstration that a source other than AP-1 was the cause, or (2) implement assessment monitoring per § 257.95. GPC will address the reported SSIs in accordance with the requirements, and options, of § 257.90(e)(1-3) and (f).

6.0 CONCLUSIONS AND FUTURE ACTIONS

Background monitoring has been completed in accordance with § 257.94(b). Statistical evaluations of the groundwater monitoring data for AP-1 identified SSIs of Appendix III groundwater monitoring parameters. In accordance with § 257.94(e)(1), 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

Driscoll, F. G., 1986 *Groundwater and Wells*, Johnson Screens, Saint Paul, Minnesota, 1089 pp.

EPRI, 2015 Technical Report, Groundwater Monitoring Guidance for the Coal Combustion Residuals Rule.

Freeze, R.A. and Cherry, J.A. 1979, *Groundwater*, Prentice-Hall, Englewood Cliffs, New Jersey, 604 pp.

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TABLES

Table 1A
Monitoring Network Well Summary

Well ID	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft MSL)	Top of Screen Elevation (ft MSL)	Hydraulic Location
YGWA-47	07/11/2016	59.50	701.94	49.50	711.94	Upgradient
YGWC-44	07/13/2016	89.95	672.77	79.95	682.77	Downgradient
YGWC-45	07/10/2016	73.80	649.30	63.80	659.30	Downgradient
YGWC-46	07/11/2016	82.98	667.23	72.98	677.23	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 1B
Non-Network Well Summary

Well ID	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft MSL)	Top of Screen Elevation (ft MSL)	Purpose
PZ-9S	05/19/2014	57.0	653.1	47.0	663.1	Piezometer
PZ-9I	05/19/2014	77.0	633.1	67.0	643.1	Piezometer
PZ-10S	05/19/2014	16.3	682.0	6.3	692.0	Piezometer
PZ-10I	05/19/2014	46.5	651.8	36.5	661.8	Piezometer

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. 30, 2016	Nov. 14, 2016	Feb. 24, 2017	May 8, 2017	Jul. 11, 2017	Oct. 10, 2017	Apr. 2, 2018	Sept. 19, 2018	Mar. 27, 2019
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Detection
YGWA-47	Upgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
YGWC-44	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
YGWC-45	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01
YGWC-46	Downgradient	BG-01	BG-02	BG-03	BG-04	BG-05	BG-06	BG-07	BG-08	D-01

Notes:
1. BG-XX = Background Event (Appendix III and Appendix IV).
2. D-XX = Detection Event (Appendix III).

Table 3
Summary of Groundwater Elevations

Well ID	Hydraulic Location	Status of Monitoring Well								
		August 30-September 1, 2016	November 14-16, 2016	February 24-28, 2017	May 8-9, 2017	July 11-13, 2017	October 10-11, 2017	April 2-4, 2018	September 19, 2018	March 27, 2019
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Detection
YGWA-47	Upgradient	731.75	729.36	726.87	725.58	724.79	723.64	722.11	722.04	726.45
YGWC-44	Downgradient	712.08	710.00	708.84	708.37	708.53	707.60	707.62	707.75	710.39
YGWC-45	Downgradient	696.96	696.46	696.83	696.59	697.19	696.58	697.00	696.45	697.52
YGWC-46	Downgradient	700.68	699.53	700.45	700.30	701.87	700.26	699.95	699.06	700.61

Notes:
Groundwater Elevation in feet above mean sea level (ft msl)

Table 4
CALCULATED GROUNDWATER FLOW RATE
March 2019

Equation

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

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

Values Used in Calculation

Value			Source
K =	3.7E-03 10.49	cm/sec ft/day	See note 1.
dh/dl =	29.97/1173 0.026	ft/ft unitless	Hydraulic gradient from GWA-47 to PZ-09S
P_e =	0.20	unitless	See note 2.

Calculation

v = 1.3 ft/day

v = 489 ft/yr

Notes

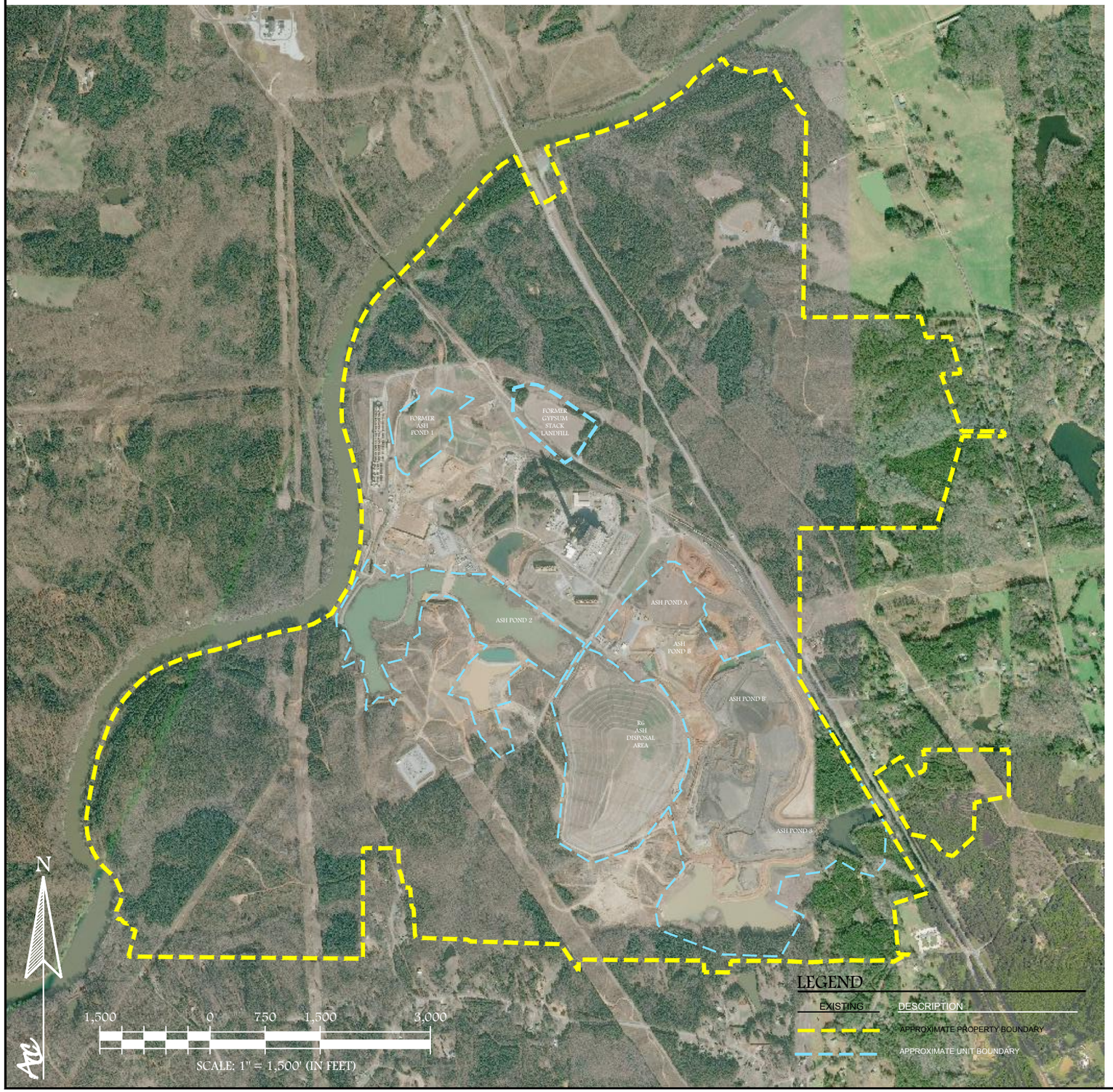
(1) Slug tests performed by Atlantic Coast Consulting, Inc. (2017).

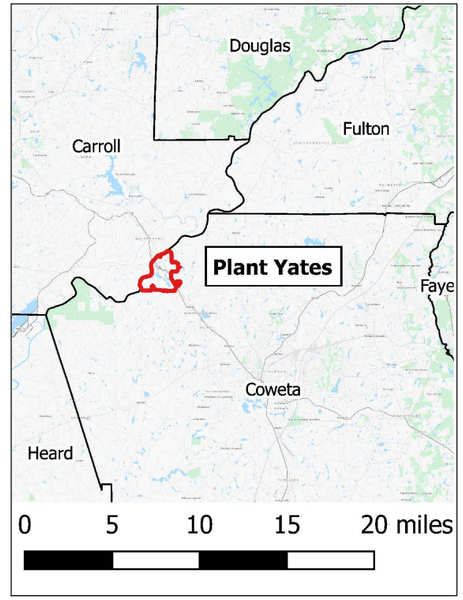
(2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989).

Table 5
Statistical Method Summary
March 2019

Plant Yates AP-1 Statistical Method Summary		
Monitoring Well Network	Upgradient Well	YGWA-47
	Downgradient Wells	YGWC-44, YGWC-45, and YGWC-46
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and TDS
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium
Statistical Methodology	Data Screening Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell (boron, calcium, chloride) pH, sulfate, and TDS) or intrawell (fluoride) statistical limits are on constituent specific basis, depending on the appropriateness of the method as determined by the Analysis of Variance

FIGURES





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Drawn by: MM

Checked by: EP

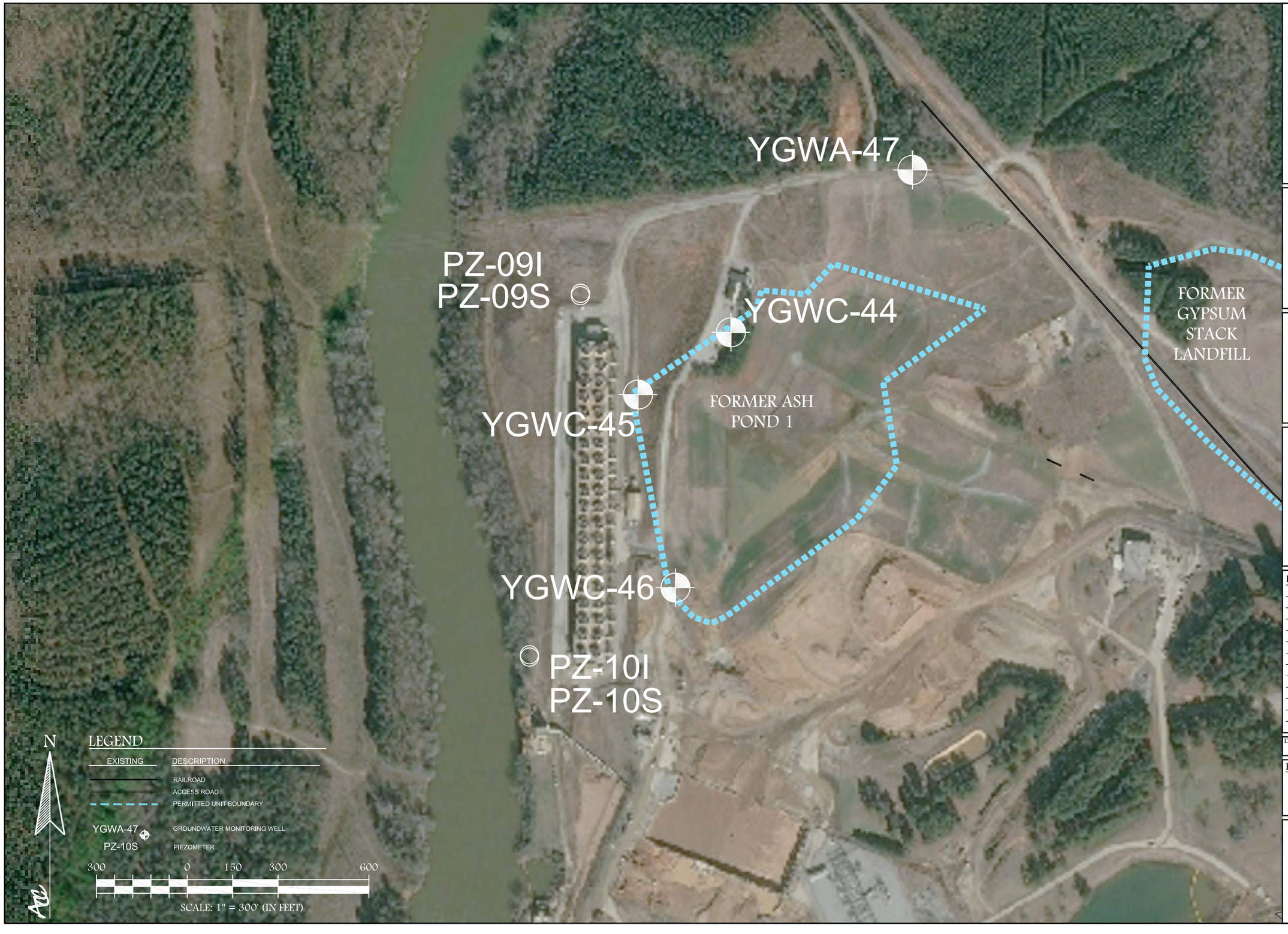
PROJECT NUMBER:

I054-110

July 2019

SITE LOCATION MAP

FIGURE 1



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WELL LOCATION MAP

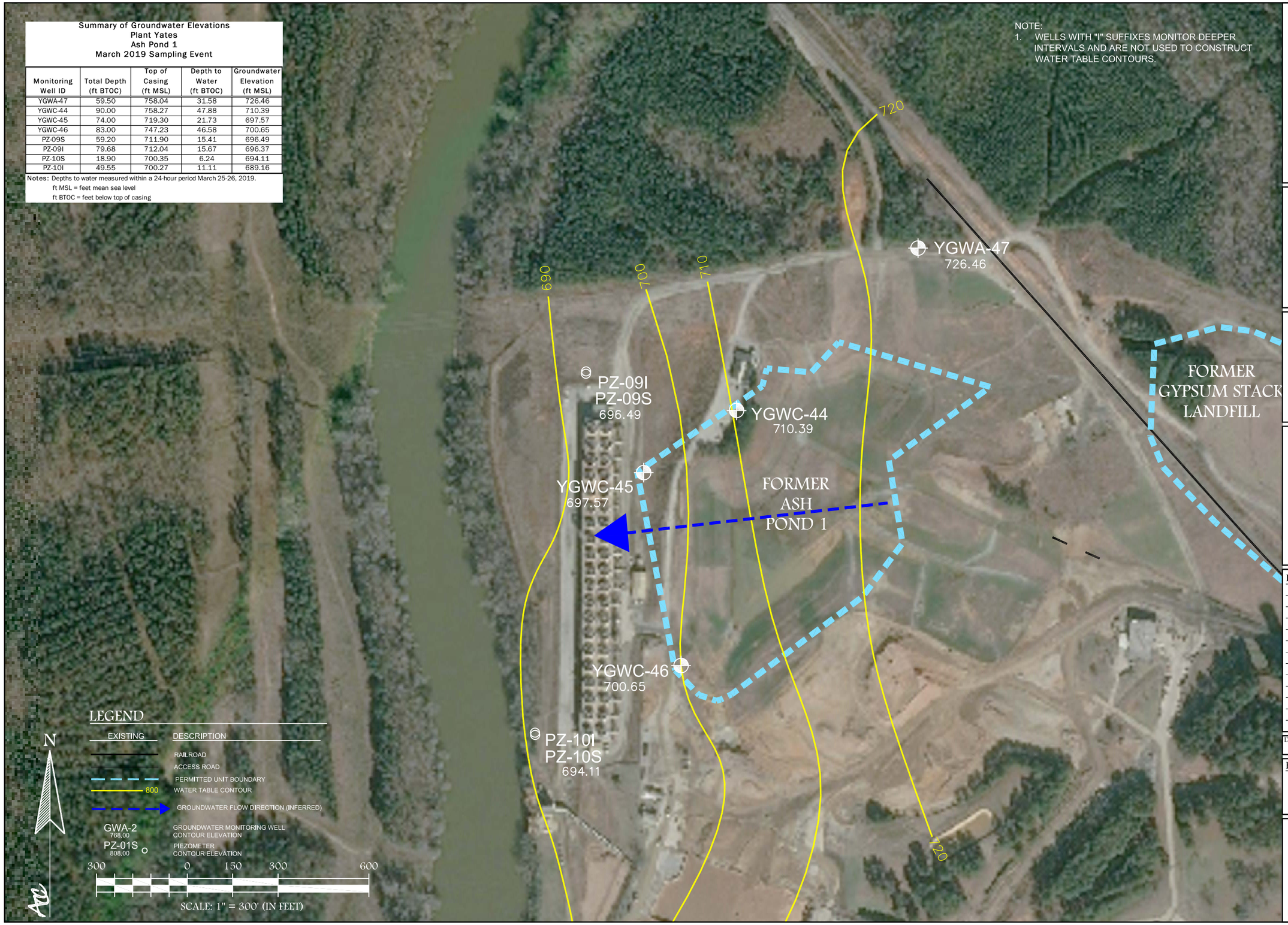
FIGURE 2

Summary of Groundwater Elevations
Plant Yates
Ash Pond 1
March 2019 Sampling Event

Monitoring Well ID	Total Depth (ft BTOC)	Top of Casing (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-47	59.50	758.04	31.58	726.46
YGWC-44	90.00	758.27	47.88	710.39
YGWC-45	74.00	719.30	21.73	697.57
YGWC-46	83.00	747.23	46.58	700.65
PZ-09S	59.20	711.90	15.41	696.49
PZ-09I	79.68	712.04	15.67	696.37
PZ-10S	18.90	700.35	6.24	694.11
PZ-10I	49.55	700.27	11.11	689.16

Notes: Depths to water measured within a 24-hour period March 25-26, 2019.
ft MSL = feet mean sea level
ft BTOC = feet below top of casing

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



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July 2019

MARCH 2019
WATER TABLE
CONTOUR MAP

FIGURE 3

APPENDICES

APPENDIX A

ANALYTICAL DATA SUMMARY TABLES

Plant Yates Ash Pond 1
Analytical Data Summary

Substance		MCL/ (SMCL)	Well ID							
			YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47
			8/30/2016	11/14/2016	2/24/2017	5/8/2017	7/11/2017	10/10/2017	4/2/2018	9/19/2018
APPENDIX III	Boron	N/R	ND (0.0166 J)	ND (0.0166 J)	ND (0.0145 J)	ND (0.0141 J)	ND (0.0131 J)	ND (0.0124 J)	ND (0.013 J)	ND (0.012 J)
	Calcium	N/R	20.9	18.6	16.1	14.6	14.3	12.1	ND	ND (11.1 J)
	Chloride	(250)	5.2	6.4	5.5	5.8	5.8	5.9	4.8	4.0
	Fluoride	4	ND (0.09 J)	ND (0.18 J)	ND (0.05 J)	ND (0.03 J)	ND (0.07 J)	ND	ND	ND
	Sulfate	(250)	160	150	120	120	110	93.0	88.8	75.0
	TDS	(500)	319	280	162	194	193	175	192	186
APPENDIX IV	Antimony	0.006	ND (0.0028 J)	ND	ND	ND (0.0004 J)	ND (0.0006 J)	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.0007 J)	ND	ND (0.00072 J)
	Barium	2	0.0413	0.0383	0.0351	0.0251	0.0233	0.0207	0.022	0.023
	Beryllium	0.004	ND	ND	ND	ND (0.00007 J)	ND	ND	ND	ND (0.000057 J)
	Cadmium	0.005	ND (0.0001 J)	ND (0.0001 J)	ND (0.00009 J)	ND (0.0001 J)	ND	ND	ND	ND
	Chromium	0.1	ND	ND (0.0093 J)	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND (0.0073 J)	0.0115	0.0106	ND (0.0099 J)	ND (0.0096 J)	ND (0.0036 J)	ND	ND (0.0036 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0061 J)	ND (0.0064 J)	ND (0.0049 J)	ND (0.0053 J)	ND (0.0051 J)	ND (0.0043 J)	ND (0.0045 J)	ND (0.0043 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND (0.000053 J)
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.09	1.00 U	0.504 U	0.455 U	0.471 U	0.649 U	0.512 U	0.789 U
	Selenium	0.05	ND (0.0017 J)	ND	ND (0.0011 J)	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

Plant Yates Ash Pond 1
Analytical Data Summary

Substance		MCL/ (SMCL)	Well ID							
			YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-44
			8/31/2016	11/15/2016	2/28/2017	5/8/2017	7/13/2017	10/10/2017	4/4/2018	9/19/2018
APPENDIX III	Boron	N/R	0.541	0.706	0.623	0.690	0.649	0.603	0.66	0.66
	Calcium	N/R	27.3	27.8	26.4	29.9	30.2	27.2	30.1	29.2
	Chloride	(250)	13	14	12	13	13	14	13.4	14.2
	Fluoride	4	ND	ND (0.12 J)	ND (0.07 J)	ND (0.04 J)	ND	ND	ND	ND
	Sulfate	(250)	150	150	130	150	150	140	137	137
	TDS	(500)	332	356	483	296	345	311	313	326
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.0005 J)	ND (0.0006 J)	ND	ND (0.0007 J)	ND	ND (0.00086 J)
	Barium	2	0.126	0.115	0.121	0.125	0.106	0.112	0.12	0.11
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	0.0119	ND (0.0033 J)	ND (0.0017 J)	ND (0.0018 J)	ND (0.0022 J)	ND (0.0017 J)	ND	ND (0.0025 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0115 J)	ND (0.0148 J)	ND (0.0124 J)	ND (0.0132 J)	ND (0.0124 J)	ND (0.0123 J)	ND (0.014 J)	ND (0.013 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND (0.000060 J)
	Molybdenum	N/R	ND	ND	ND (0.0005 J)	ND	ND	ND	ND	ND
	Radium	5	2.15	0.676 U	0.241 U	0.508 U	0.770 U	1.43	0.325 U	0.386 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
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7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Plant Yates Ash Pond 1
Analytical Data Summary

Substance		MCL/ (SMCL)	Well ID							
			YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45
			8/31/2016	11/14/2016	2/27/2017	5/9/2017	7/13/2017	10/10/2017	4/3/2018	9/19/2018
APPENDIX III	Boron	N/R	0.308	0.368	0.321	0.338	0.340	0.319	0.35	0.35
	Calcium	N/R	46.7	50.6	49.4	56.0	54.8	52.8	50.6	50.5
	Chloride	(250)	5.8	5.8	5.0	4.6	4.7	4.5	4.6	4.7
	Fluoride	4	ND (0.11 J)	0.71	ND (0.22 J)	ND (0.20 J)	ND (0.11 J)	0.39	ND	ND
	Sulfate	(250)	190	200	190	190	180	180	183	192
	TDS	(500)	402	445	346	388	433	396	418	413
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.0006 J)	ND (0.00061 J)	ND (0.00072 J)
	Barium	2	0.0754	0.0701	0.0834	0.0779	0.0719	0.0708	0.068	0.064
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND (0.0061 J)	ND	ND	ND (0.0006 J)	ND	ND	ND
	Cobalt	N/R	ND (0.0009 J)	ND (0.0009 J)	ND (0.0010 J)	ND (0.0008 J)	ND (0.0009 J)	ND (0.0008 J)	ND	ND (0.00081 J)
	Lead	0.015	ND	ND	ND	ND (0.0001 J)	ND	ND	ND	ND
	Lithium	N/R	ND (0.0147 J)	ND (0.0175 J)	ND (0.0135 J)	ND (0.0136 J)	ND (0.0129 J)	ND (0.0150 J)	ND (0.014 J)	ND (0.012 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND (0.000071 J)
	Molybdenum	N/R	ND (0.0024 J)	ND	ND (0.0018 J)	ND (0.0015 J)	ND (0.0015 J)	ND (0.0015 J)	ND	ND
	Radium	5	1.65	0.981 U	0.528 U	1.40	0.611 U	1.47	1.53	0.839 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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Plant Yates Ash Pond 1
Analytical Data Summary

Substance		MCL/ (SMCL)	Well ID							
			YGWC-46	YGWC-46	YGWC-46	YGWC-46	YGWC-46	YGWC-46	YGWC-46	YGWC-46
			9/1/2016	11/16/2016	2/27/2017	5/8/2017	7/13/2017	10/11/2017	4/4/2018	9/19/2018
APPENDIX III	Boron	N/R	2.12	2.03	1.29	1.71	1.62	1.17	1.2	1.2
	Calcium	N/R	96.8	107	104	103	83.7	69.0	51.9	51.9
	Chloride	(250)	37	37	33	33	32	29	26.6	26.5
	Fluoride	4	ND (0.08 J)	ND (0.04 J)	ND (0.05 J)	ND (0.004 J)	0.35	ND	ND	ND
	Sulfate	(250)	770	780	650	770	630	540	430	395
	TDS	(500)	1240	1220	1060	1160	996	835	1470	702
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND (0.0007 J)	ND (0.0011 J)	ND (0.0011 J)	ND (0.00087 J)	ND (0.0012 J)
	Barium	2	0.0414	0.0365	0.0326	0.0332	0.0365	0.0288	0.025	0.030
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND (0.0001 J)	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	0.0171	0.0145	0.0161	0.0367	0.0265	0.0556	0.025	0.042
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0077 J)	ND (0.0075 J)	ND (0.0084 J)	ND (0.0087 J)	ND (0.0104 J)	ND (0.0099 J)	ND (0.012 J)	ND (0.011 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND (0.000070 J)
	Molybdenum	N/R	ND	ND	ND	ND (0.0008 J)	ND (0.0015 J)	ND (0.0020 J)	ND (0.0021 J)	ND (0.0039 J)
	Radium	5	2.28	0.639 U	0.617 U	0.949	1.41	0.856 U	0.974	1.15 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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Plant Yates Ash Pond 1
Analytical Data Summary

Substance		MCL/ (SMCL)	Well ID							
			YGWA-47	YGWC-44	YGWC-45	YGWC-46				
			3/27/2019	3/27/2019	3/27/2019	3/27/2019				
APPENDIX III	Boron	N/R	ND (0.013 J)	0.57	0.33	0.89				
	Calcium	N/R	ND (10.8 J)	27.9	48.8	54.2				
	Chloride	(250)	4.3	14	4.6	20.9				
	Fluoride	4	ND (0.081 J)	ND	ND (0.18 J)	ND (0.12 J)				
	Sulfate	(250)	65.9	146	188	437				
	TDS	(500)	170	302	383	641				

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APPENDIX B

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:

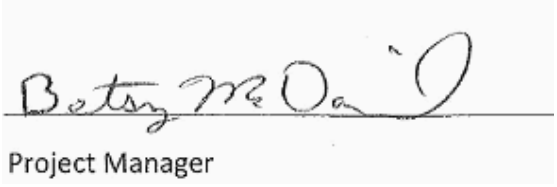
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZH0941**
September 07, 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 07, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AZH0941-01	Ground Water	08/30/16 12:10	08/31/16 09:00
Dup-1	AZH0941-02	Ground Water	08/30/16 00:00	08/31/16 09:00
YGWC-42	AZH0941-03	Ground Water	08/30/16 13:29	08/31/16 09:00
FB-1	AZH0941-04	DI Water	08/30/16 14:50	08/31/16 09:00

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 07, 2016

Report No.: AZH0941
Client ID: YGWA-47
Date/Time Sampled: 8/30/2016 12:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZH0941-01
Date/Time Received: 8/31/2016 9:00:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	319	25	10	mg/L	SM 2540 C		1	08/31/16 15:15	08/31/16 15:15	6080844	JPT
Inorganic Anions											
Chloride	5.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	08/31/16 10:53	08/31/16 12:56	6080842	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	08/31/16 10:53	08/31/16 12:56	6080842	RLC
Sulfate	160	10	0.51	mg/L	EPA 300.0		10	08/31/16 10:53	09/01/16 19:38	6080842	RLC
Metals, Total											
Antimony	0.0028	0.0030	0.0008	mg/L	EPA 6020B	B-01, J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Barium	0.0413	0.0100	0.0004	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Boron	0.0166	0.100	0.0064	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Calcium	20.9	2.50	0.155	mg/L	EPA 6020B		5	09/01/16 09:25	09/03/16 12:57	6080862	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Cobalt	0.0073	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Selenium	0.0017	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Lithium	0.0061	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/01/16 09:35	09/01/16 13:55	6080864	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 07, 2016

Report No.: AZH0941
Client ID: Dup-1
Date/Time Sampled: 8/30/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZH0941-02
Date/Time Received: 8/31/2016 9:00:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	303	25	10	mg/L	SM 2540 C		1	08/31/16 15:15	08/31/16 15:15	6080844	JPT
Inorganic Anions											
Chloride	5.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	08/31/16 10:53	08/31/16 13:37	6080842	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	08/31/16 10:53	08/31/16 13:37	6080842	RLC
Sulfate	170	10	0.51	mg/L	EPA 300.0		10	08/31/16 10:53	09/01/16 19:59	6080842	RLC
Metals, Total											
Antimony	0.0008	0.0030	0.0008	mg/L	EPA 6020B	B-01, J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Barium	0.0424	0.0100	0.0004	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Boron	0.0146	0.100	0.0064	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Calcium	22.6	2.50	0.155	mg/L	EPA 6020B		5	09/01/16 09:25	09/03/16 13:03	6080862	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Cobalt	0.0079	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Selenium	0.0021	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Lithium	0.0059	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/01/16 09:35	09/01/16 13:57	6080864	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 07, 2016

Report No.: AZH0941
Client ID: YGWC-42
Date/Time Sampled: 8/30/2016 1:29:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZH0941-03
Date/Time Received: 8/31/2016 9:00:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1650	25	10	mg/L	SM 2540 C		1	08/31/16 15:15	08/31/16 15:15	6080844	JPT
Inorganic Anions											
Chloride	4.4	0.25	0.01	mg/L	EPA 300.0	B-01	1	08/31/16 10:53	08/31/16 13:58	6080842	RLC
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	08/31/16 10:53	08/31/16 13:58	6080842	RLC
Sulfate	980	50	2.6	mg/L	EPA 300.0		50	08/31/16 10:53	09/01/16 20:20	6080842	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Arsenic	0.0023	0.0050	0.0016	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Barium	0.0455	0.0100	0.0004	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Beryllium	0.00009	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Boron	24.7	5.00	0.321	mg/L	EPA 6020B		50	09/01/16 09:25	09/03/16 13:09	6080862	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Calcium	133	25.0	1.55	mg/L	EPA 6020B		50	09/01/16 09:25	09/03/16 13:09	6080862	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Cobalt	0.0025	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Molybdenum	0.0019	0.0100	0.0017	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Selenium	0.0711	0.0100	0.0010	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Lithium	0.0257	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/01/16 09:35	09/01/16 13:59	6080864	MTC

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 07, 2016

Report No.: AZH0941
Client ID: FB-1
Date/Time Sampled: 8/30/2016 2:50:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZH0941-04
Date/Time Received: 8/31/2016 9:00:00AM

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	09/01/16 12:00	09/01/16 12:00	6090007	JPT
Inorganic Anions											
Chloride	0.37	0.25	0.01	mg/L	EPA 300.0	B-01	1	08/31/16 10:53	08/31/16 14:18	6080842	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	08/31/16 10:53	08/31/16 14:18	6080842	RLC
Sulfate	0.58	1.0	0.05	mg/L	EPA 300.0	J	1	08/31/16 10:53	08/31/16 14:18	6080842	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Boron	0.0642	0.100	0.0064	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/01/16 09:35	09/01/16 14:02	6080864	MTC

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September 07, 2016

Report No.: AZH0941

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080844 - SM 2540 C											
Blank (6080844-BLK1)						Prepared & Analyzed: 08/31/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6080844-BS1)						Prepared & Analyzed: 08/31/16					
Total Dissolved Solids	387	25	10	mg/L	400.00		97	84-108			
Duplicate (6080844-DUP1)		**Source: AZH0946-03**				Prepared & Analyzed: 08/31/16					
Total Dissolved Solids	131	25	10	mg/L		136			4	10	
Duplicate (6080844-DUP2)		**Source: AZH0961-02**				Prepared & Analyzed: 08/31/16					
Total Dissolved Solids	360	25	10	mg/L		365			1	10	
Batch 6090007 - SM 2540 C											
Blank (6090007-BLK1)						Prepared & Analyzed: 09/01/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090007-BS1)						Prepared & Analyzed: 09/01/16					
Total Dissolved Solids	396	25	10	mg/L	400.00		99	84-108			
Duplicate (6090007-DUP1)		**Source: AZH0981-01**				Prepared & Analyzed: 09/01/16					
Total Dissolved Solids	127	25	10	mg/L		141			10	10	
Duplicate (6090007-DUP2)		**Source: AZH0981-05**				Prepared & Analyzed: 09/01/16					
Total Dissolved Solids	264	25	10	mg/L		254			4	10	

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Report No.: AZH0941

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080842 - EPA 300.0											
Blank (6080842-BLK1)						Prepared & Analyzed: 08/31/16					
Chloride	0.03	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6080842-BS1)						Prepared & Analyzed: 08/31/16					
Chloride	9.83	0.25	0.01	mg/L	10.010		98	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.010		101	90-110			
Sulfate	9.98	1.0	0.05	mg/L	10.010		100	90-110			
Matrix Spike (6080842-MS1)		**Source: AZH0942-01**				Prepared & Analyzed: 08/31/16					
Chloride	16.1	0.25	0.01	mg/L	10.010	5.97	101	90-110			
Fluoride	12.9	0.30	0.02	mg/L	10.010	0.78	121	90-110			QM-05
Sulfate	202	1.0	0.05	mg/L	10.010	216	NR	90-110			QM-05
Matrix Spike (6080842-MS2)		**Source: AZH0946-03**				Prepared & Analyzed: 08/31/16					
Chloride	13.2	0.25	0.01	mg/L	10.010	3.11	101	90-110			
Fluoride	10.4	0.30	0.02	mg/L	10.010	0.06	104	90-110			
Sulfate	12.1	1.0	0.05	mg/L	10.010	2.06	100	90-110			
Matrix Spike Dup (6080842-MSD1)		**Source: AZH0942-01**				Prepared & Analyzed: 08/31/16					
Chloride	15.8	0.25	0.01	mg/L	10.010	5.97	99	90-110	2	15	
Fluoride	13.3	0.30	0.02	mg/L	10.010	0.78	125	90-110	3	15	QM-05
Sulfate	202	1.0	0.05	mg/L	10.010	216	NR	90-110	0.4	15	QM-05

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Report No.: AZH0941

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080862 - EPA 3005A											
Blank (6080862-BLK1)						Prepared & Analyzed: 09/01/16					
Antimony	0.0012	0.0030	0.0008	mg/L							J
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 (6080862-BS1)						Prepared & Analyzed: 09/01/16					
Antimony	0.103	0.0030	0.0008	mg/L	0.10000		103	80-120			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000		100	80-120			
Barium	0.0966	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.0964	0.0030	0.00008	mg/L	0.10000		96	80-120			
Boron	0.942	0.100	0.0064	mg/L	1.0000		94	80-120			
Cadmium	0.0996	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	0.943	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	0.0969	0.0100	0.0005	mg/L	0.10000		97	80-120			
Copper	0.0996	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	0.0995	0.0100	0.0017	mg/L	0.10000		100	80-120			
Nickel	0.0956	0.0050	0.0006	mg/L	0.10000		96	80-120			
Selenium	0.0980	0.0100	0.0010	mg/L	0.10000		98	80-120			
Silver	0.0982	0.0050	0.0005	mg/L	0.10000		98	80-120			
Thallium	0.0969	0.0010	0.0002	mg/L	0.10000		97	80-120			
Vanadium	0.104	0.0100	0.0071	mg/L	0.10000		104	80-120			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000		105	80-120			
Lithium	0.101	0.0500	0.0021	mg/L	0.10000		101	80-120			

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September 07, 2016

Report No.: AZH0941

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080862 - EPA 3005A											
Matrix Spike (6080862-MS1)		**Source: AZH0941-02**			Prepared & Analyzed: 09/01/16						
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	0.0008	105	75-125			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125			
Barium	0.152	0.0100	0.0004	mg/L	0.10000	0.0424	110	75-125			
Beryllium	0.0983	0.0030	0.00008	mg/L	0.10000	ND	98	75-125			
Boron	0.990	0.100	0.0064	mg/L	1.0000	0.0146	98	75-125			
Cadmium	0.0964	0.0010	0.00007	mg/L	0.10000	0.0001	96	75-125			
Calcium	21.5	2.50	0.155	mg/L	1.0000	22.6	NR	75-125			QM-02
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125			
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	0.0079	96	75-125			
Copper	0.0962	0.0050	0.0005	mg/L	0.10000	ND	96	75-125			
Lead	0.0950	0.0050	0.0001	mg/L	0.10000	ND	95	75-125			
Molybdenum	0.0981	0.0100	0.0017	mg/L	0.10000	ND	98	75-125			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000	0.0036	98	75-125			
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	0.0021	99	75-125			
Silver	0.0966	0.0050	0.0005	mg/L	0.10000	ND	97	75-125			
Thallium	0.0958	0.0010	0.0002	mg/L	0.10000	ND	96	75-125			
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000	ND	105	75-125			
Zinc	0.107	0.0100	0.0021	mg/L	0.10000	0.0038	103	75-125			
Lithium	0.109	0.0500	0.0021	mg/L	0.10000	0.0059	103	75-125			
Matrix Spike Dup (6080862-MSD1)		**Source: AZH0941-02**			Prepared & Analyzed: 09/01/16						
Antimony	0.104	0.0030	0.0008	mg/L	0.10000	0.0008	103	75-125	2	20	
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000	ND	105	75-125	4	20	
Barium	0.150	0.0100	0.0004	mg/L	0.10000	0.0424	107	75-125	2	20	
Beryllium	0.0914	0.0030	0.00008	mg/L	0.10000	ND	91	75-125	7	20	
Boron	0.950	0.100	0.0064	mg/L	1.0000	0.0146	94	75-125	4	20	
Cadmium	0.0978	0.0010	0.00007	mg/L	0.10000	0.0001	98	75-125	1	20	
Calcium	22.5	2.50	0.155	mg/L	1.0000	22.6	NR	75-125	4	20	QM-02
Chromium	0.103	0.0100	0.0009	mg/L	0.10000	ND	103	75-125	2	20	
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	0.0079	96	75-125	0.5	20	
Copper	0.0970	0.0050	0.0005	mg/L	0.10000	ND	97	75-125	0.9	20	
Lead	0.0967	0.0050	0.0001	mg/L	0.10000	ND	97	75-125	2	20	
Molybdenum	0.0998	0.0100	0.0017	mg/L	0.10000	ND	100	75-125	2	20	
Nickel	0.104	0.0050	0.0006	mg/L	0.10000	0.0036	100	75-125	2	20	
Selenium	0.106	0.0100	0.0010	mg/L	0.10000	0.0021	104	75-125	5	20	
Silver	0.0970	0.0050	0.0005	mg/L	0.10000	ND	97	75-125	0.4	20	
Thallium	0.0975	0.0010	0.0002	mg/L	0.10000	ND	98	75-125	2	20	
Vanadium	0.107	0.0100	0.0071	mg/L	0.10000	ND	107	75-125	1	20	
Zinc	0.107	0.0100	0.0021	mg/L	0.10000	0.0038	103	75-125	0.6	20	
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0059	98	75-125	5	20	

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September 07, 2016

Report No.: AZH0941

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080862 - EPA 3005A											
Post Spike (6080862-PS1)		**Source: AZH0941-02**				Prepared & Analyzed: 09/01/16					
Antimony	92.8			ug/L	100.00	0.846	92	80-120			
Arsenic	102			ug/L	100.00	0.707	101	80-120			
Barium	152			ug/L	100.00	42.4	109	80-120			
Beryllium	94.7			ug/L	100.00	0.0612	95	80-120			
Boron	949			ug/L	1000.0	14.6	93	80-120			
Cadmium	98.5			ug/L	100.00	0.0963	98	80-120			
Calcium	23100			ug/L	1000.0	22600	48	80-120			QM-02
Chromium	99.4			ug/L	100.00	0.280	99	80-120			
Cobalt	103			ug/L	100.00	7.87	95	80-120			
Copper	96.1			ug/L	100.00	0.182	96	80-120			
Lead	94.3			ug/L	100.00	0.0288	94	80-120			
Molybdenum	99.1			ug/L	100.00	0.668	98	80-120			
Nickel	103			ug/L	100.00	3.61	99	80-120			
Selenium	101			ug/L	100.00	2.13	99	80-120			
Silver	95.9			ug/L	100.00	0.0094	96	80-120			
Thallium	94.6			ug/L	100.00	0.0403	95	80-120			
Vanadium	103			ug/L	100.00	0.528	103	80-120			
Zinc	102			ug/L	100.00	3.81	98	80-120			
Lithium	103			ug/L	100.00	5.90	97	80-120			
Batch 6080864 - EPA 7470A											
Blank (6080864-BLK1)						Prepared & Analyzed: 09/01/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6080864-BS1)						Prepared & Analyzed: 09/01/16					
Mercury	0.00258	0.00050	0.000041	mg/L	2.5000E-3		103	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 07, 2016

Report No.: AZH0941

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080864 - EPA 7470A											
Matrix Spike (6080864-MS1)			**Source: AZH0947-03**			Prepared & Analyzed: 09/01/16					
Mercury	0.00252	0.00050	0.000041	mg/L	2.5000E-3	ND	101	75-125			
Matrix Spike Dup (6080864-MSD1)			**Source: AZH0947-03**			Prepared & Analyzed: 09/01/16					
Mercury	0.00249	0.00050	0.000041	mg/L	2.5000E-3	ND	100	75-125	1	20	
Post Spike (6080864-PS1)			**Source: AZH0947-03**			Prepared & Analyzed: 09/01/16					
Mercury	1.67			ug/L	1.6667	0.0131	99	80-120			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 07, 2016

Legend

Definition of Laboratory Terms

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

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-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).

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: 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 AP CCR GW

PROJECT #: Phase 2 CCR

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
8/30/16	1210	GW		X	YGWA-47	3		1	1	1	1
8/30/16	-	GW		X	DUP-1	3		1	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

SAMPLED BY AND TITLE: [signature] DATE/TIME:

RELINQUISHED BY: [signature] DATE/TIME: 8/31/16 905

RECEIVED BY: DATE/TIME:

RELINQUISHED BY: DATE/TIME:

RECEIVED BY LAB: Mzaltman DATE/TIME: 08/31/16 0900

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 #: AZH0941
Entered into LIMS: MR
Tracking #:

CHAIN OF CUSTODY RECORD

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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 AP CCR GW

PROJECT #: Phase 2 CCR

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
8-30-16	1329	GW		X	YGWC-42	3		1	1	1	3
8-30-16	1450	W		X	FB-1	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: [signature] DATE/TIME:

RELINQUISHED BY: [signature] DATE/TIME: 8/31/16 1:00

RECEIVED BY: DATE/TIME:

RELINQUISHED BY: DATE/TIME:

RECEIVED BY LAB: [signature] DATE/TIME: 08/31/16 0900

FOR LAB USE ONLY
LAB #: AZH0941
Entered into LIMS: MR

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

Tracking #:

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:

Pace COC Plant Yates AP CCR GW

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: 9/7/2016 5:11:29PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 08/31/16 09:00

Work Order: AZH0941
Logged In By: Mohammad M. Rahman

OBSERVATIONS

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

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

CHECKLIST ITEMS

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

Comments:

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

September 30, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: YATES AP CCR GW
Pace Project No.: 30194841

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on September 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.

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

CERTIFICATIONS

Project: YATES AP CCR GW
Pace Project No.: 30194841

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 AP CCR GW
Pace Project No.: 30194841

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30194841001	**YGWA-47**	Water	08/30/16 12:10	09/01/16 10:00
30194841002	**DUP-1**	Water	08/30/16 00:01	09/01/16 10:00

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(724)850-5600

SAMPLE ANALYTE COUNT

Project: YATES AP CCR GW
Pace Project No.: 30194841

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30194841001	**YGWA-47**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194841002	**DUP-1**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

Pace Analytical Services, Inc.
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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP CCR GW
Pace Project No.: 30194841

Sample: YGWA-47 **Lab ID: 30194841001** Collected: 08/30/16 12:10 Received: 09/01/16 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	**0.448 ± 0.168 (0.191) C:83% T:NA**	pCi/L	09/14/16 08:10	13982-63-3	
Radium-228	EPA 9320	**0.646 ± 0.434 (0.814) C:74% T:67%**	pCi/L	09/27/16 12:12	15262-20-1	
Total Radium	Total Radium Calculation	**1.09 ± 0.602 (1.01)**	pCi/L	09/29/16 14:55	7440-14-4	

Sample: DUP-1 **Lab ID: 30194841002** Collected: 08/30/16 00:01 Received: 09/01/16 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	**0.482 ± 0.172 (0.178) C:81% T:NA**	pCi/L	09/14/16 08:10	13982-63-3	
Radium-228	EPA 9320	**0.759 ± 0.380 (0.652) C:79% T:75%**	pCi/L	09/22/16 02:09	15262-20-1	
Total Radium	Total Radium Calculation	**1.24 ± 0.552 (0.830)**	pCi/L	09/29/16 14:55	7440-14-4	

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 AP CCR GW
Pace Project No.: 30194841

QC Batch: 232400 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30194841001, 30194841002

METHOD BLANK: 1138984 Matrix: Water
Associated Lab Samples: 30194841001, 30194841002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.973 ± 0.471 (0.817) C:83% T:71%	pCi/L	09/27/16 12:10	

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 AP CCR GW
Pace Project No.: 30194841

QC Batch: 232404 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30194841001, 30194841002

METHOD BLANK: 1138989 Matrix: Water
Associated Lab Samples: 30194841001, 30194841002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00141 ± 0.114 (0.281) C:80% T:NA	pCi/L	09/14/16 08:08	

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 AP CCR GW
Pace Project No.: 30194841

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 AP CCR GW

PROJECT #: Phase 2 CCR

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		
8/30/16	1210	GW		X	YGWA-47	3	1	1	1		001
8/30/16	-	GW		X	DUP-1	3	1	1	1		002

WO#:30194841

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] DATE/TIME: 8/31/16 @ 0652

RECEIVED BY: [signature] DATE/TIME: 8/31/16 0652

RELINQUISHED BY: [signature] DATE/TIME: 8/31/16

RELINQUISHED BY: DATE/TIME:

RECEIVED BY LAB: [signature] DATE/TIME: 9-1-16 1000

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

pH checked: (Yes) No NA

Ice: Yes (No) NA

Temperature: N/A Min: Max:

Custody Seal: Intact Broken (Not Present)

# of Coolers:

Cooler ID:

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

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

30194841

Client Name: Southern Company Services Project #

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

Tracking #: 6812 5098 8058

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 9-1-16

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. No name, only signature
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: GW	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: 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: 9-1-16

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:	9/9/2016
Worklist:	31288
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1138989
MB concentration:	0.001
M/B Counting Uncertainty:	0.114
MB MDC:	0.281
MB Numerical Performance Indicator:	0.02
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS31288	LCSD31288
Count Date:	9/21/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.514	
Target Conc. (pCi/L, g, F):	8.694	
Uncertainty (Calculated):	0.409	
Result (pCi/L, g, F):	8.626	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.651	
Numerical Performance Indicator:	-0.17	
Percent Recovery:	99.21%	
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.:	30194944003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30194944003DUP	
Sample Result (pCi/L, g, F):	0.015	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.146	
Sample Duplicate Result (pCi/L, g, F):	0.213	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.174	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.708	30194944003
Duplicate RPD:	173.24%	30194944003DUP
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:	9/23/2016
Worklist:	31284
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1138984
MB concentration:	0.973
M/B Counting Uncertainty:	0.438
MB MDC:	0.817
MB Numerical Performance Indicator:	4.35
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS31284	LCSD31284
Count Date:	9/27/2016	9/27/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	25.565	25.565
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.814	0.808
Target Conc. (pCi/L, g, F):	6.284	6.325
Uncertainty (Calculated):	0.452	0.455
Result (pCi/L, g, F):	5.336	6.148
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.693	0.789
Numerical Performance Indicator:	-2.25	-0.38
Percent Recovery:	84.92%	97.20%
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.:	LCS31284	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD31284	
Sample Result (pCi/L, g, F):	5.336	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.693	
Sample Duplicate Result (pCi/L, g, F):	6.148	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.789	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-1.515	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.49%	
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:
*The method blank result is below the reporting limit for this analysis and is acceptable.

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

September 30, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: YATES AP CCR GW
Pace Project No.: 30194840

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on September 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.

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 AP CCR GW
Pace Project No.: 30194840

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 AP CCR GW
Pace Project No.: 30194840

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30194840001	**YGWC-42**	Water	08/30/16 13:29	09/01/16 10:00
30194840002	**FB-1**	Water	08/30/16 14:50	09/01/16 10:00

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: YATES AP CCR GW
Pace Project No.: 30194840

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30194840001	**YGWC-42**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194840002	**FB-1**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP CCR GW
Pace Project No.: 30194840

Sample: YGWC-42 **Lab ID: 30194840001** Collected: 08/30/16 13:29 Received: 09/01/16 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	**1.66 ± 0.359 (0.185) C:87% T:NA**	pCi/L	09/14/16 08:10	13982-63-3	
Radium-228	EPA 9320	**1.33 ± 0.493 (0.707) C:84% T:70%**	pCi/L	09/27/16 12:11	15262-20-1	
Total Radium	Total Radium Calculation	**2.99 ± 0.852 (0.892)**	pCi/L	09/29/16 14:55	7440-14-4	

Sample: FB-1 **Lab ID: 30194840002** Collected: 08/30/16 14:50 Received: 09/01/16 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	**0.0765 ± 0.115 (0.247) C:75% T:NA**	pCi/L	09/14/16 08:10	13982-63-3	
Radium-228	EPA 9320	**0.909 ± 0.459 (0.783) C:72% T:71%**	pCi/L	09/27/16 12:12	15262-20-1	
Total Radium	Total Radium Calculation	**0.986 ± 0.574 (1.03)**	pCi/L	09/29/16 14:55	7440-14-4	

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 AP CCR GW
Pace Project No.: 30194840

QC Batch: 232400 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30194840001, 30194840002

METHOD BLANK: 1138984 Matrix: Water
Associated Lab Samples: 30194840001, 30194840002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.973 ± 0.471 (0.817) C:83% T:71%	pCi/L	09/27/16 12:10	

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP CCR GW
Pace Project No.: 30194840

QC Batch: 232404 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30194840001, 30194840002

METHOD BLANK: 1138989 Matrix: Water
Associated Lab Samples: 30194840001, 30194840002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00141 ± 0.114 (0.281) C:80% T:NA	pCi/L	09/14/16 08:08	

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 AP CCR GW
Pace Project No.: 30194840

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 AP CCR GW

PROJECT #: Phase 2 CCR

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		
8-30-16	1329	GW		X	YGWC-42	3		1	1	1		001
8-30-16	1450	W		X	FB-1	3		1	1	1		002

WO#:30194840

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: [signature] DATE/TIME: 8/31/16 @ 0652 RELINQUISHED BY: [signature] DATE/TIME: 8/31/16

RECEIVED BY: [signature] DATE/TIME: 8/31/16 0652 RELINQUISHED BY: [signature] DATE/TIME:

RECEIVED BY LAB: [signature] DATE/TIME: 9-1-16 1000 SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: (Yes) No NA | Ice: Yes (No) NA | Temperature: Min: N/A Max: | Custody Seal: Intact Broken (Not Present) | # of Coolers | Cooler ID:

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

Pace COC Plant Yates AP CCR GW

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Southern Company Services Project # 30194840

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

Tracking #: 6812 5098 8058

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 9-1-16

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. No name / only signature
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: GW	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: 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	X	Initial when completed: ML Date: 9-1-16

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

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	WRR
Date:	9/9/2016
Worklist:	31288
Matrix:	DW

Method Blank Assessment

MB Sample ID	1138989
MB concentration:	0.001
M/B Counting Uncertainty:	0.114
MB MDC:	0.281
MB Numerical Performance Indicator:	0.02
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS31288	LCSD31288
Count Date:	9/21/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.514	
Target Conc. (pCi/L, g, F):	8.694	
Uncertainty (Calculated):	0.409	
Result (pCi/L, g, F):	8.626	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.651	
Numerical Performance Indicator:	-0.17	
Percent Recovery:	99.21%	
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.:	30194944003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30194944003DUP	
Sample Result (pCi/L, g, F):	0.015	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.146	
Sample Duplicate Result (pCi/L, g, F):	0.213	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.174	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.708	30194944003
Duplicate RPD:	173.24%	30194944003DUP
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:	9/23/2016
Worklist:	31284
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1138984
MB concentration:	0.973
M/B Counting Uncertainty:	0.438
MB MDC:	0.817
MB Numerical Performance Indicator:	4.35
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS31284	LCSD31284
Count Date:	9/27/2016	9/27/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	25.565	25.565
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.814	0.808
Target Conc. (pCi/L, g, F):	6.284	6.325
Uncertainty (Calculated):	0.452	0.455
Result (pCi/L, g, F):	5.336	6.148
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.693	0.789
Numerical Performance Indicator:	-2.25	-0.38
Percent Recovery:	84.92%	97.20%
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.:	LCS31284	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD31284	
Sample Result (pCi/L, g, F):	5.336	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.693	
Sample Duplicate Result (pCi/L, g, F):	6.148	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.789	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-1.515	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.49%	
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:
*The method blank result is below the reporting limit for this analysis and is acceptable.

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: AZI0018
September 14, 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.

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Attention: Mr. Joju Abraham

September 14, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWC-44	AZI0018-01	Ground Water	08/31/16 11:40	09/01/16 09:00
YGWC-45	AZI0018-02	Ground Water	08/31/16 14:25	09/01/16 09:00
EQB-1	AZI0018-03	DI Water	08/31/16 15:05	09/01/16 09:00
YGWC-43	AZI0018-04	Ground Water	08/31/16 16:50	09/01/16 09:00

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Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018
Client ID: YGWC-44
Date/Time Sampled: 8/31/2016 11:40:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0018-01
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	332	25	10	mg/L	SM 2540 C		1	09/06/16 18:00	09/06/16 18:00	6090101	JPT
Inorganic Anions											
Chloride	13	0.25	0.01	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 20:05	6090052	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 20:05	6090052	RLC
Sulfate	150	10	0.51	mg/L	EPA 300.0		10	09/02/16 09:30	09/05/16 05:45	6090052	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 12:40	09/03/16 16:54	6090063	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Barium	0.126	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Boron	0.541	0.100	0.0064	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Calcium	27.3	2.50	0.155	mg/L	EPA 6020B		5	09/02/16 12:40	09/06/16 15:33	6090063	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Cobalt	0.0119	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Lithium	0.0115	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/02/16 08:45	09/02/16 14:27	6090042	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018
Client ID: YGWC-45
Date/Time Sampled: 8/31/2016 2:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0018-02
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	402	25	10	mg/L	SM 2540 C		1	09/06/16 18:00	09/06/16 18:00	6090101	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.01	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 20:46	6090052	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	09/02/16 09:30	09/03/16 20:46	6090052	RLC
Sulfate	190	10	0.51	mg/L	EPA 300.0		10	09/02/16 09:30	09/05/16 06:06	6090052	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 12:40	09/03/16 17:00	6090063	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Barium	0.0754	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Boron	0.308	0.100	0.0064	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Calcium	46.7	2.50	0.155	mg/L	EPA 6020B		5	09/02/16 12:40	09/06/16 15:39	6090063	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Molybdenum	0.0024	0.0100	0.0017	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Lithium	0.0147	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/02/16 08:45	09/02/16 14:29	6090042	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018
Client ID: EQB-1
Date/Time Sampled: 8/31/2016 3:05:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0018-03
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	ND	25	10	mg/L	SM 2540 C		1	09/06/16 18:00	09/06/16 18:00	6090101	JPT
Inorganic Anions											
Chloride	0.09	0.25	0.01	mg/L	EPA 300.0	J	1	09/02/16 09:30	09/03/16 21:07	6090052	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 21:07	6090052	RLC
Sulfate	0.07	1.0	0.05	mg/L	EPA 300.0	J	1	09/02/16 09:30	09/03/16 21:07	6090052	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 12:40	09/03/16 17:05	6090063	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Mercury	0.00004	0.00050	0.000041	mg/L	EPA 7470A	B-01, J	1	09/02/16 08:45	09/02/16 14:31	6090042	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018
Client ID: YGWC-43
Date/Time Sampled: 8/31/2016 4:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0018-04
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	80	25	10	mg/L	SM 2540 C		1	09/06/16 18:00	09/06/16 18:00	6090101	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 21:28	6090052	RLC
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	09/02/16 09:30	09/03/16 21:28	6090052	RLC
Sulfate	34	1.0	0.05	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 21:28	6090052	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 12:40	09/03/16 17:10	6090063	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Barium	0.0065	0.0100	0.0004	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Boron	0.169	0.100	0.0064	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Calcium	3.40	0.500	0.0311	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Molybdenum	0.0022	0.0100	0.0017	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Lithium	0.0060	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/02/16 08:45	09/02/16 14:34	6090042	MTC

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September 14, 2016

Report No.: AZI0018

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090101 - SM 2540 C											
Blank (6090101-BLK1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090101-BS1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	393	25	10	mg/L	400.00		98	84-108			
Duplicate (6090101-DUP1)		**Source: AZI0015-02**				Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	3870	25	10	mg/L		3860			0.2	10	
Duplicate (6090101-DUP2)		**Source: AZI0018-04**				Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	122	25	10	mg/L		80			42	10	QR-03
Batch 6090267 - SM 2540 C											
Blank (6090267-BLK1)						Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090267-BS1)						Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	370	25	10	mg/L	400.00		92	84-108			
Duplicate (6090267-DUP1)		**Source: AZI0018-04RE1**				Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	81	25	10	mg/L		79			2	10	

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Report No.: AZI0018

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090052 - EPA 300.0											
Blank (6090052-BLK1)						Prepared: 09/02/16 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 (6090052-BS1)						Prepared: 09/02/16 Analyzed: 09/03/16					
Chloride	10.0	0.25	0.01	mg/L	10.010		100	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.010		101	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		101	90-110			
Matrix Spike (6090052-MS1)		**Source: AZI0015-03**				Prepared: 09/02/16 Analyzed: 09/03/16					
Chloride	507	0.25	0.01	mg/L	10.010	587	NR	90-110			QM-05
Fluoride	11.2	0.30	0.02	mg/L	10.010	0.93	102	90-110			
Sulfate	315	1.0	0.05	mg/L	10.010	37.1	NR	90-110			QM-05
Matrix Spike (6090052-MS2)		**Source: AZI0018-01**				Prepared: 09/02/16 Analyzed: 09/03/16					
Chloride	22.8	0.25	0.01	mg/L	10.010	13.0	98	90-110			
Fluoride	11.5	0.30	0.02	mg/L	10.010	ND	114	90-110			QM-05
Sulfate	129	1.0	0.05	mg/L	10.010	133	NR	90-110			QM-05
Matrix Spike Dup (6090052-MSD1)		**Source: AZI0015-03**				Prepared: 09/02/16 Analyzed: 09/03/16					
Chloride	517	0.25	0.01	mg/L	10.010	587	NR	90-110	2	15	QM-05
Fluoride	11.2	0.30	0.02	mg/L	10.010	0.93	103	90-110	0.3	15	
Sulfate	315	1.0	0.05	mg/L	10.010	37.1	NR	90-110	0.002	15	QM-05

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Report No.: AZI0018

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090042 - EPA 7470A											
Blank (6090042-BLK1)						Prepared & Analyzed: 09/02/16					
Mercury	0.00004	0.00050	0.000041	mg/L							J
LCS (6090042-BS1)						Prepared & Analyzed: 09/02/16					
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			
Matrix Spike (6090042-MS1)		**Source: AZI0015-02**				Prepared & Analyzed: 09/02/16					
Mercury	0.00218	0.00050	0.000041	mg/L	2.5000E-3	ND	87	75-125			
Matrix Spike Dup (6090042-MSD1)		**Source: AZI0015-02**				Prepared & Analyzed: 09/02/16					
Mercury	0.00215	0.00050	0.000041	mg/L	2.5000E-3	ND	86	75-125	1	20	
Post Spike (6090042-PS1)		**Source: AZI0015-02**				Prepared & Analyzed: 09/02/16					
Mercury	1.58			ug/L	1.6667	0.0259	93	80-120			
Batch 6090063 - EPA 3005A											
Blank (6090063-BLK1)						Prepared: 09/02/16 Analyzed: 09/03/16					
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							

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 14, 2016

Report No.: AZI0018

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090063 - EPA 3005A											
LCS (6090063-BS1)					Prepared & Analyzed: 09/02/16						
Antimony	0.106	0.0030	0.0008	mg/L	0.10000		106	80-120			
Arsenic	0.0977	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.0953	0.0100	0.0004	mg/L	0.10000		95	80-120			
Beryllium	0.0878	0.0030	0.00008	mg/L	0.10000		88	80-120			
Boron	0.901	0.100	0.0064	mg/L	1.0000		90	80-120			
Cadmium	0.0994	0.0010	0.00007	mg/L	0.10000		99	80-120			
Calcium	0.963	0.500	0.0311	mg/L	1.0000		96	80-120			
Chromium	0.0995	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.0958	0.0100	0.0005	mg/L	0.10000		96	80-120			
Copper	0.0944	0.0050	0.0005	mg/L	0.10000		94	80-120			
Lead	0.0976	0.0050	0.0001	mg/L	0.10000		98	80-120			
Molybdenum	0.0993	0.0100	0.0017	mg/L	0.10000		99	80-120			
Nickel	0.0949	0.0050	0.0006	mg/L	0.10000		95	80-120			
Selenium	0.101	0.0100	0.0010	mg/L	0.10000		101	80-120			
Silver	0.100	0.0050	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.0979	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.0982	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	0.0890	0.0500	0.0021	mg/L	0.10000		89	80-120			
Matrix Spike (6090063-MS1)		**Source: AZI0015-03**			Prepared & Analyzed: 09/02/16						
Antimony	0.104	0.0030	0.0008	mg/L	0.10000	ND	104	75-125			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125			
Barium	0.130	0.0100	0.0004	mg/L	0.10000	0.0289	101	75-125			
Beryllium	0.0763	0.0030	0.00008	mg/L	0.10000	ND	76	75-125			
Boron	1.20	0.100	0.0064	mg/L	1.0000	0.560	64	75-125			QM-02
Cadmium	0.0936	0.0010	0.00007	mg/L	0.10000	ND	94	75-125			
Calcium	64.9	5.00	0.311	mg/L	1.0000	65.0	NR	75-125			QM-02
Chromium	0.108	0.0100	0.0009	mg/L	0.10000	0.0013	107	75-125			
Cobalt	0.0979	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Copper	0.0877	0.0050	0.0005	mg/L	0.10000	ND	88	75-125			
Lead	0.0905	0.0050	0.0001	mg/L	0.10000	ND	90	75-125			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000	ND	109	75-125			
Nickel	0.0920	0.0050	0.0006	mg/L	0.10000	ND	92	75-125			
Selenium	0.0440	0.0100	0.0010	mg/L	0.10000	0.0020	42	75-125			QM-05
Silver	0.0878	0.0050	0.0005	mg/L	0.10000	ND	88	75-125			
Thallium	0.0940	0.0010	0.0002	mg/L	0.10000	ND	94	75-125			
Vanadium	0.122	0.0100	0.0071	mg/L	0.10000	ND	122	75-125			
Zinc	0.0911	0.0100	0.0021	mg/L	0.10000	ND	91	75-125			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0219	81	75-125			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090063 - EPA 3005A											
Matrix Spike Dup (6090063-MSD1)		**Source: AZI0015-03**			Prepared & Analyzed: 09/02/16						
Antimony	0.102	0.0030	0.0008	mg/L	0.10000	ND	102	75-125	2	20	
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000	ND	100	75-125	0.5	20	
Barium	0.127	0.0100	0.0004	mg/L	0.10000	0.0289	98	75-125	2	20	
Beryllium	0.0745	0.0030	0.00008	mg/L	0.10000	ND	74	75-125	2	20	QM-05
Boron	1.15	0.100	0.0064	mg/L	1.0000	0.560	59	75-125	5	20	QM-02
Cadmium	0.0896	0.0010	0.00007	mg/L	0.10000	ND	90	75-125	4	20	
Calcium	58.7	5.00	0.311	mg/L	1.0000	65.0	NR	75-125	10	20	QM-02
Chromium	0.108	0.0100	0.0009	mg/L	0.10000	0.0013	106	75-125	0.2	20	
Cobalt	0.0961	0.0100	0.0005	mg/L	0.10000	ND	96	75-125	2	20	
Copper	0.0884	0.0050	0.0005	mg/L	0.10000	ND	88	75-125	0.8	20	
Lead	0.0869	0.0050	0.0001	mg/L	0.10000	ND	87	75-125	4	20	
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000	ND	104	75-125	4	20	
Nickel	0.0900	0.0050	0.0006	mg/L	0.10000	ND	90	75-125	2	20	
Selenium	0.0527	0.0100	0.0010	mg/L	0.10000	0.0020	51	75-125	18	20	QM-05
Silver	0.0855	0.0050	0.0005	mg/L	0.10000	ND	85	75-125	3	20	
Thallium	0.0894	0.0010	0.0002	mg/L	0.10000	ND	89	75-125	5	20	
Vanadium	0.118	0.0100	0.0071	mg/L	0.10000	ND	118	75-125	3	20	
Zinc	0.0920	0.0100	0.0021	mg/L	0.10000	ND	92	75-125	1	20	
Lithium	0.0984	0.0500	0.0021	mg/L	0.10000	0.0219	77	75-125	4	20	
Post Spike (6090063-PS1)		**Source: AZI0015-03**			Prepared & Analyzed: 09/02/16						
Antimony	98.9			ug/L	100.00	0.0800	99	80-120			
Arsenic	101			ug/L	100.00	1.53	99	80-120			
Barium	127			ug/L	100.00	28.9	98	80-120			
Beryllium	74.5			ug/L	100.00	0.0207	74	80-120			QM-05
Boron	1160			ug/L	1000.0	560	60	80-120			QM-02
Cadmium	92.6			ug/L	100.00	0.0183	93	80-120			
Calcium	61300			ug/L	1000.0	65000	NR	80-120			QM-02
Chromium	104			ug/L	100.00	1.25	102	80-120			
Cobalt	95.2			ug/L	100.00	0.401	95	80-120			
Copper	85.0			ug/L	100.00	0.195	85	80-120			
Lead	87.6			ug/L	100.00	0.0431	88	80-120			
Molybdenum	108			ug/L	100.00	0.480	108	80-120			
Nickel	92.6			ug/L	100.00	0.329	92	80-120			
Selenium	99.2			ug/L	100.00	2.03	97	80-120			
Silver	87.8			ug/L	100.00	0.0021	88	80-120			
Thallium	91.5			ug/L	100.00	0.0702	91	80-120			
Vanadium	115			ug/L	100.00	6.20	109	80-120			
Zinc	91.9			ug/L	100.00	1.01	91	80-120			
Lithium	102			ug/L	100.00	21.9	80	80-120			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 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).

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 COUSTODY 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 AP CCR GW

PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

					CONTAINER TYPE		P	P	P			
					PRESERVATION		3	7	3			
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
8/31/16	1140	GW		X	YGWC-44	3	1	1	1	1	
8/31/16	1425	GW		X	YGWC-45	3	1	1	1	2	
8/31/16	1505	W		X	EQB-1	3	1	1	1	3	
8/31/16	1650	GW		X	YGWC-43	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; 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: Michael Hutchinson — 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 9:20
RECEIVED BY LAB: [signature] — DATE/TIME: 9/1/16 0900

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT (circled) OTHER FS
Custody Seal: Intact (circled) Broken Not Present
# of Coolers
Cooler ID:
Temperature: 3°C Min: 3°C Max:
pH checked: Yes (circled) No NA
Ice: Yes (circled) No NA

FOR LAB USE ONLY
LAB #: AZF0018
Entered into LIMS: [initials]
Tracking #:

Pace COC Plant Yates AP CCR GW

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: 9/14/2016 6:39:54PM**

Attn: Mr. Joju Abraham

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

Work Order: AZI0018
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

September 30, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: YATES AP CCR GW
Pace Project No.: 30194994

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 AP CCR GW
Pace Project No.: 30194994

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 AP CCR GW
Pace Project No.: 30194994

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30194994001	**YGWC-44**	Water	08/31/16 11:40	09/02/16 10:20
30194994002	**YGWC-45**	Water	08/31/16 14:25	09/02/16 10:20
30194994003	**EQB-1**	Water	08/31/16 15:05	09/02/16 10:20
30194994004	**YGWC-43**	Water	08/31/16 16:50	09/02/16 10:20

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: YATES AP CCR GW
Pace Project No.: 30194994

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30194994001	**YGWC-44**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194994002	**YGWC-45**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194994003	**EQB-1**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194994004	**YGWC-43**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP CCR GW
Pace Project No.: 30194994

Sample: YGWC-44 **Lab ID: 30194994001** Collected: 08/31/16 11:40 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	**0.334 ± 0.160 (0.214) C:69% T:NA**	pCi/L	09/14/16 09:38	13982-63-3	
Radium-228	EPA 9320	**1.82 ± 0.607 (0.838) C:79% T:78%**	pCi/L	09/22/16 21:44	15262-20-1	
Total Radium	Total Radium Calculation	**2.15 ± 0.767 (1.05)**	pCi/L	09/26/16 14:07	7440-14-4	

Sample: YGWC-45 **Lab ID: 30194994002** Collected: 08/31/16 14:25 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	**0.550 ± 0.181 (0.167) C:87% T:NA**	pCi/L	09/14/16 09:38	13982-63-3	
Radium-228	EPA 9320	**1.10 ± 0.545 (0.935) C:72% T:66%**	pCi/L	09/28/16 13:07	15262-20-1	
Total Radium	Total Radium Calculation	**1.65 ± 0.726 (1.10)**	pCi/L	09/29/16 12:27	7440-14-4	

Sample: EQB-1 **Lab ID: 30194994003** Collected: 08/31/16 15:05 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	**-0.0597 ± 0.0535 (0.200) C:74% T:NA**	pCi/L	09/14/16 09:38	13982-63-3	
Radium-228	EPA 9320	**0.783 ± 0.454 (0.832) C:71% T:85%**	pCi/L	09/22/16 22:11	15262-20-1	
Total Radium	Total Radium Calculation	**0.783 ± 0.508 (1.03)**	pCi/L	09/26/16 14:07	7440-14-4	

Sample: YGWC-43 **Lab ID: 30194994004** Collected: 08/31/16 16:50 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	**0.282 ± 0.187 (0.343) C:72% T:NA**	pCi/L	09/14/16 11:35	13982-63-3	
Radium-228	EPA 9320	**0.644 ± 0.464 (0.888) C:73% T:69%**	pCi/L	09/28/16 13:07	15262-20-1	
Total Radium	Total Radium Calculation	**0.926 ± 0.651 (1.23)**	pCi/L	09/29/16 12:27	7440-14-4	

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 AP CCR GW
Pace Project No.: 30194994

QC Batch: 232405 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30194994001, 30194994002, 30194994003, 30194994004

METHOD BLANK: 1138990 Matrix: Water
Associated Lab Samples: 30194994001, 30194994002, 30194994003, 30194994004

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
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP CCR GW
Pace Project No.: 30194994

QC Batch: 232402 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30194994001, 30194994002, 30194994003, 30194994004

METHOD BLANK: 1138986 Matrix: Water
Associated Lab Samples: 30194994001, 30194994002, 30194994003, 30194994004

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

QUALIFIERS

Project: YATES AP CCR GW
Pace Project No.: 30194994

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#:30194994

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

30194994

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 AP CCR GW

PROJECT #: Phase 2 CCR

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 I.D. NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:								P	P	P		
PRESERVATION:								3	7	3		
8/31/16	1140	GW		X	YGWC-44	3		1	1	1		001
8/31/16	1425	GW		X	YGWC-45	3		1	1	1		002
8/31/16	1505	W		X	EQB-1	3		1	1	1		003
8/31/16	1650	GW		X	YGWC-43	3		1	1	1		004

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: Michael Thomlinson — 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 9:20

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 — pH: Yes No NA

Temperature: 3°C Min: 3°C Max:

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

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

Pace COC Plant Yates AP CCR GW
9-2-16 1620

Sample Condition Upon Receipt Pittsburgh

30194994

Pace Analytical

Client Name: Georgia Power Project #

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

Tracking #: 6812 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, WW, 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:	9/9/2016
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.

9/30/16

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	

Duplicate Sample Assessment		
Sample I.D.:	30194996003	Enter Duplicate
Duplicate Sample I.D.	30194996003DUP	sample IDs if
Sample Result (pCi/L, g, F):	1.218	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.440	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	2.067	the space below.
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***	

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:

***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:

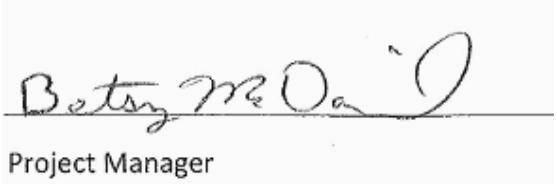
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZI0049**
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
YGWC-46	AZI0049-01	Ground Water	09/01/16 09:50	09/02/16 08:35
YGWC-49	AZI0049-02	Ground Water	09/01/16 10:04	09/02/16 08:35

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.: AZI0049
Client ID: YGWC-46
Date/Time Sampled: 9/1/2016 9:50:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0049-01
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	1240	25	10	mg/L	SM 2540 C		1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	37	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/05/16 10:11	09/05/16 18:18	6090088	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	09/05/16 10:11	09/05/16 18:18	6090088	RLC
Sulfate	770	20	1.0	mg/L	EPA 300.0		20	09/05/16 10:11	09/07/16 01:33	6090088	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Barium	0.0414	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Boron	2.12	1.00	0.0642	mg/L	EPA 6020B		10	09/06/16 10:15	09/08/16 17:36	6090062	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Calcium	96.8	5.00	0.311	mg/L	EPA 6020B		10	09/06/16 10:15	09/08/16 17:36	6090062	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Cobalt	0.0171	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Lithium	0.0077	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:12	6090078	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049
Client ID: YGWC-49
Date/Time Sampled: 9/1/2016 10:04:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0049-02
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	228	25	10	mg/L	SM 2540 C		1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	5.3	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/05/16 10:11	09/05/16 18:38	6090088	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	09/05/16 10:11	09/05/16 18:38	6090088	RLC
Sulfate	95	5.0	0.26	mg/L	EPA 300.0		5	09/05/16 10:11	09/07/16 01:54	6090088	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Barium	0.0770	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Beryllium	0.0001	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Boron	0.0113	0.100	0.0064	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Calcium	13.9	2.50	0.155	mg/L	EPA 6020B		5	09/06/16 10:15	09/08/16 17:42	6090062	CSW
Chromium	0.0013	0.0100	0.0009	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Selenium	0.0086	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Lithium	0.0034	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:19	6090078	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

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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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090088 - EPA 300.0											
Blank (6090088-BLK1)						Prepared & Analyzed: 09/05/16					
Chloride	0.05	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6090088-BS1)						Prepared & Analyzed: 09/05/16					
Chloride	10.1	0.25	0.01	mg/L	10.010		101	90-110			
Fluoride	10.0	0.30	0.02	mg/L	10.010		100	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		102	90-110			
Matrix Spike (6090088-MS1)		**Source: AZI0050-01**				Prepared & Analyzed: 09/05/16					
Chloride	466	0.25	0.01	mg/L	10.010	478	NR	90-110			QM-02
Fluoride	11.8	0.30	0.02	mg/L	10.010	0.34	114	90-110			QM-05
Sulfate	275	1.0	0.05	mg/L	10.010	291	NR	90-110			QM-02
Matrix Spike (6090088-MS2)		**Source: AZI0059-03**				Prepared: 09/05/16 Analyzed: 09/06/16					
Chloride	13.9	0.25	0.01	mg/L	10.010	3.33	105	90-110			
Fluoride	10.9	0.30	0.02	mg/L	10.010	0.20	107	90-110			
Sulfate	12.7	1.0	0.05	mg/L	10.010	2.66	101	90-110			
Matrix Spike Dup (6090088-MSD1)		**Source: AZI0050-01**				Prepared & Analyzed: 09/05/16					
Chloride	486	0.25	0.01	mg/L	10.010	478	84	90-110	4	15	QM-02
Fluoride	11.7	0.30	0.02	mg/L	10.010	0.34	114	90-110	0.4	15	QM-05
Sulfate	275	1.0	0.05	mg/L	10.010	291	NR	90-110	0.1	15	QM-02

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.: AZI0049

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.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

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.: AZI0049

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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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

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.

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 AP CCR GW

PROJECT #: Phase 2 CCR

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	0950	GW		X	YGWC-46	4		1	1	2	1

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: Michael Hutchinson
DATE/TIME: 9-1-16 / 1130

RELINQUISHED BY:
DATE/TIME:

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 #: AZI0049
Entered into LIMS:
Tracking #:

Pace COC Plant Yates AP CCR GW

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 AP CCR GW

PROJECT #: Phase 2 CCR

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	1004	GW		X	YGWC-49	3	1	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

SAMPLED BY AND TITLE: Wesley Bowen
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 #: AZI0049
Entered into LIMS:
Tracking #:

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 5:43:47PM**

Attn: Mr. Joju Abraham

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

Work Order: AZI0049
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 2 **#Containers:** 7

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 AP CCR GW
Pace Project No.: 30195135

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 AP CCR GW
Pace Project No.: 30195135

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: Yates AP CCR GW
Pace Project No.: 30195135

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195135001	**YGWC-46**	Water	09/01/16 09:50	09/06/16 08:50

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

SAMPLE ANALYTE COUNT

Project: Yates AP CCR GW
Pace Project No.: 30195135

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195135001	**YGWC-46**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Yates AP CCR GW
Pace Project No.: 30195135

Sample: YGWC-46 **Lab ID: 30195135001** Collected: 09/01/16 09:50 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	**0.467 ± 0.226 (0.277) C:87% T:NA**	pCi/L	09/28/16 11:36	13982-63-3	
Radium-228	EPA 9320	**1.81 ± 0.565 (0.708) C:80% T:83%**	pCi/L	09/23/16 22:08	15262-20-1	
Total Radium	Total Radium Calculation	**2.28 ± 0.791 (0.985)**	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 AP CCR GW
Pace Project No.: 30195135

QC Batch: 232981 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195135001

METHOD BLANK: 1141806 Matrix: Water
Associated Lab Samples: 30195135001

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 AP CCR GW
Pace Project No.: 30195135

QC Batch: 232987 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195135001

METHOD BLANK: 1141823 Matrix: Water
Associated Lab Samples: 30195135001

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 AP CCR GW
Pace Project No.: 30195135

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

PaceAnalytical®

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 AP CCR GW

PROJECT #: Phase 2 CCR

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	0950	GW		X	YGWC-46	4		1	1	2							001

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

WO#:30195135

30195135

SAMPLED BY AND TITLE: Michael Hutchinson	DATE/TIME: 9-1-16 / 1130	RELINQUISHED BY: [signature]	DATE/TIME: 9/2/16 0655
RECEIVED BY: [signature]	DATE/TIME: 9/2/16 6:53	RELINQUISHED BY:	DATE/TIME:
RECEIVED BY LAB: Whitney Horne / 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 #:

Pace COC Plant Yates AP CCR GW

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA Project # 30195135

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

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		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	30195128008	
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 AP CCR GW
Pace Project No.: 30195136

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 AP CCR GW
Pace Project No.: 30195136

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: Yates AP CCR GW
Pace Project No.: 30195136

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195136001	**YGWC-49**	Water	09/01/16 10:04	09/06/16 08:50

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

SAMPLE ANALYTE COUNT

Project: Yates AP CCR GW
Pace Project No.: 30195136

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195136001	**YGWC-49**	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 AP CCR GW
Pace Project No.: 30195136

Sample: YGWC-49 **Lab ID: 30195136001** Collected: 09/01/16 10:04 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	**0.122 ± 0.157 (0.331) C:85% T:NA**	pCi/L	09/28/16 11:36	13982-63-3	
Radium-228	EPA 9320	**1.08 ± 0.481 (0.784) C:79% T:76%**	pCi/L	09/23/16 22:08	15262-20-1	
Total Radium	Total Radium Calculation	**1.20 ± 0.638 (1.12)**	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 AP CCR GW
Pace Project No.: 30195136

QC Batch: 232981 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195136001

METHOD BLANK: 1141806 Matrix: Water
Associated Lab Samples: 30195136001

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 AP CCR GW
Pace Project No.: 30195136

QC Batch: 232987
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195136001

METHOD BLANK: 1141823
Matrix: Water
Associated Lab Samples: 30195136001

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 AP CCR GW
Pace Project No.: 30195136

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 AP CCR GW

PROJECT #: Phase 2 CCR

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	1004	GW		X	YGWC-49	3		1	1	1		001

WO#:30195136

30195136

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: Wesley Bowen
DATE/TIME: 9/1/16

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

RECEIVED BY:
DATE/TIME: 9/2/16 6:55

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB: Ashley Rowe/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 #:

Pace COC Plant Yates AP CCR GW

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA Project # 30195136

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. No Signature
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

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		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	30195128008	
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

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)?	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.

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: **AZK0511**
November 22, 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

November 22, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AZK0511-01	Ground Water	11/14/16 11:20	11/15/16 15:38
YGWC-36	AZK0511-02	Ground Water	11/14/16 16:35	11/15/16 15:38
YGWC-45	AZK0511-03	Ground Water	11/14/16 13:30	11/15/16 15:38
Dup-1	AZK0511-04	Ground Water	11/14/16 00:00	11/15/16 15:38
YGWC-49	AZK0511-05	Ground Water	11/15/16 10:35	11/15/16 15:38
FB-1-11-15-16	AZK0511-06	Water	11/15/16 12:25	11/15/16 15:38
YGWC-44	AZK0511-07	Ground Water	11/15/16 13:00	11/15/16 15:38

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 22, 2016

Report No.: AZK0511
Client ID: YGWA-47
Date/Time Sampled: 11/14/2016 11:20:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0511-01
Date/Time Received: 11/15/2016 3:38:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	280	25	10	mg/L	SM 2540 C		1	11/16/16 16:30	11/16/16 16:30	6110421	JPT
Inorganic Anions											
Chloride	6.4	0.25	0.01	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 04:23	6110434	RNB
Fluoride	0.18	0.30	0.02	mg/L	EPA 300.0	J	1	11/16/16 13:05	11/17/16 04:23	6110434	RNB
Sulfate	150	10	0.51	mg/L	EPA 300.0		10	11/16/16 13:05	11/20/16 03:42	6110434	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Barium	0.0383	0.0100	0.0004	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Boron	0.0166	0.0400	0.0064	mg/L	EPA 6020B	B-01, J	1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Calcium	18.6	2.50	0.155	mg/L	EPA 6020B		5	11/17/16 08:30	11/20/16 14:53	6110444	CSW
Chromium	0.0093	0.0100	0.0009	mg/L	EPA 6020B	B-01, J	1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Cobalt	0.0115	0.0100	0.0005	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Lithium	0.0064	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:03	6110444	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/17/16 09:55	11/17/16 15:13	6110442	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 22, 2016

Report No.: AZK0511
Client ID: YGWC-36
Date/Time Sampled: 11/14/2016 4:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0511-02
Date/Time Received: 11/15/2016 3:38:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	272	25	10	mg/L	SM 2540 C		1	11/16/16 16:30	11/16/16 16:30	6110421	JPT
Inorganic Anions											
Chloride	6.7	0.25	0.01	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 06:56	6110434	RNB
Fluoride	0.18	0.30	0.02	mg/L	EPA 300.0	J	1	11/16/16 13:05	11/17/16 06:56	6110434	RNB
Sulfate	110	10	0.51	mg/L	EPA 300.0		10	11/16/16 13:05	11/20/16 05:46	6110434	RLC
Metals, Total											
Antimony	0.0014	0.0030	0.0008	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Arsenic	ND	0.0100	0.0016	mg/L	EPA 6020B	R-01	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Barium	0.0182	0.0100	0.0004	mg/L	EPA 6020B		1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Beryllium	0.000090	0.0030	0.00008	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Boron	0.287	0.100	0.0064	mg/L	EPA 6020B	B-01, R-01	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Cadmium	0.000090	0.0010	0.00007	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Calcium	7.79	0.500	0.0311	mg/L	EPA 6020B		1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Chromium	0.0035	0.0100	0.0009	mg/L	EPA 6020B	B-01, J	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Molybdenum	0.0071	0.0100	0.0017	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Selenium	ND	0.0500	0.0010	mg/L	EPA 6020B	R-01	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Lithium	0.0044	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/17/16 12:42	6110444	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/17/16 09:55	11/17/16 15:15	6110442	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 22, 2016

Report No.: AZK0511
Client ID: YGWC-45
Date/Time Sampled: 11/14/2016 1:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0511-03
Date/Time Received: 11/15/2016 3:38:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	445	25	10	mg/L	SM 2540 C		1	11/16/16 16:30	11/16/16 16:30	6110421	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.01	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 07:18	6110434	RNB
Fluoride	0.71	0.30	0.02	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 07:18	6110434	RNB
Sulfate	200	10	0.51	mg/L	EPA 300.0		10	11/16/16 13:05	11/20/16 06:06	6110434	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Barium	0.0701	0.0100	0.0004	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Boron	0.368	0.0400	0.0064	mg/L	EPA 6020B	B-01	1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Calcium	50.6	5.00	0.311	mg/L	EPA 6020B		10	11/17/16 08:30	11/20/16 14:57	6110444	CSW
Chromium	0.0061	0.0100	0.0009	mg/L	EPA 6020B	B-01, J	1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Lithium	0.0175	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:09	6110444	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/17/16 09:55	11/17/16 15:17	6110442	MTC

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 22, 2016

Report No.: AZK0511
Client ID: Dup-1
Date/Time Sampled: 11/14/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0511-04
Date/Time Received: 11/15/2016 3:38:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	299	25	10	mg/L	SM 2540 C		1	11/16/16 16:30	11/16/16 16:30	6110421	JPT
Inorganic Anions											
Chloride	6.4	0.25	0.01	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 07:40	6110434	RNB
Fluoride	0.52	0.30	0.02	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 07:40	6110434	RNB
Sulfate	150	10	0.51	mg/L	EPA 300.0		10	11/16/16 13:05	11/20/16 06:27	6110434	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Barium	0.0379	0.0100	0.0004	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Boron	0.0178	0.0400	0.0064	mg/L	EPA 6020B	B-01, J	1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Calcium	18.6	2.50	0.155	mg/L	EPA 6020B		5	11/17/16 08:30	11/20/16 15:02	6110444	CSW
Chromium	0.0081	0.0100	0.0009	mg/L	EPA 6020B	B-01, J	1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Cobalt	0.0110	0.0100	0.0005	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Lithium	0.0062	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:16	6110444	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/17/16 09:55	11/17/16 15:24	6110442	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 22, 2016

Report No.: AZK0511
Client ID: YGWC-49
Date/Time Sampled: 11/15/2016 10:35:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0511-05
Date/Time Received: 11/15/2016 3:38:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	211	25	10	mg/L	SM 2540 C		1	11/16/16 16:30	11/16/16 16:30	6110421	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.01	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 08:01	6110434	RNB
Fluoride	0.16	0.30	0.02	mg/L	EPA 300.0	J	1	11/16/16 13:05	11/17/16 08:01	6110434	RNB
Sulfate	94	10	0.51	mg/L	EPA 300.0		10	11/16/16 13:05	11/20/16 06:48	6110434	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Barium	0.0772	0.0100	0.0004	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Beryllium	0.0001	0.0030	0.00008	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Boron	0.0074	0.0400	0.0064	mg/L	EPA 6020B	B-01, J	1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Calcium	13.5	2.50	0.155	mg/L	EPA 6020B		5	11/17/16 08:30	11/20/16 15:08	6110444	CSW
Chromium	0.0014	0.0100	0.0009	mg/L	EPA 6020B	B-01, J	1	11/17/16 08:30	11/21/16 17:55	6110444	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Selenium	0.0056	0.0100	0.0010	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Lithium	0.0044	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:22	6110444	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/17/16 09:55	11/17/16 15:27	6110442	MTC

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Attention: Mr. Joju Abraham

November 22, 2016

Report No.: AZK0511
Client ID: FB-1-11-15-16
Date/Time Sampled: 11/15/2016 12:25:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZK0511-06
Date/Time Received: 11/15/2016 3:38:00PM

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	11/16/16 16:30	11/16/16 16:30	6110421	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 08:23	6110434	RNB
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	11/16/16 13:05	11/17/16 08:23	6110434	RNB
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 08:23	6110434	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/17/16 08:30	11/21/16 18:01	6110444	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:28	6110444	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/17/16 09:55	11/17/16 15:29	6110442	MTC

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Attention: Mr. Joju Abraham

November 22, 2016

Report No.: AZK0511
Client ID: YGWC-44
Date/Time Sampled: 11/15/2016 1:00:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0511-07
Date/Time Received: 11/15/2016 3:38:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	356	25	10	mg/L	SM 2540 C		1	11/16/16 16:30	11/16/16 16:30	6110421	JPT
Inorganic Anions											
Chloride	14	0.25	0.01	mg/L	EPA 300.0		1	11/16/16 13:05	11/17/16 08:45	6110434	RNB
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	11/16/16 13:05	11/17/16 08:45	6110434	RNB
Sulfate	150	10	0.51	mg/L	EPA 300.0		10	11/16/16 13:05	11/20/16 07:08	6110434	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Barium	0.115	0.0100	0.0004	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Boron	0.706	0.0400	0.0064	mg/L	EPA 6020B	B-01	1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Calcium	27.8	2.50	0.155	mg/L	EPA 6020B		5	11/17/16 08:30	11/20/16 15:14	6110444	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/17/16 08:30	11/21/16 18:07	6110444	CSW
Cobalt	0.0033	0.0100	0.0005	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Lithium	0.0148	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/17/16 08:30	11/19/16 18:34	6110444	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/17/16 09:55	11/17/16 15:32	6110442	MTC

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Report No.: AZK0511

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110421 - SM 2540 C											
Blank (6110421-BLK1)						Prepared & Analyzed: 11/16/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6110421-BS1)						Prepared & Analyzed: 11/16/16					
Total Dissolved Solids	389	25	10	mg/L	400.00		97	84-108			
Duplicate (6110421-DUP1)		**Source: AZK0464-03**				Prepared & Analyzed: 11/16/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (6110421-DUP2)		**Source: AZK0511-03**				Prepared & Analyzed: 11/16/16					
Total Dissolved Solids	454	25	10	mg/L		445			2	10	

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Report No.: AZK0511

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110434 - EPA 300.0											
Blank (6110434-BLK1)						Prepared: 11/16/16 Analyzed: 11/17/16					
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 (6110434-BS1)						Prepared: 11/16/16 Analyzed: 11/17/16					
Chloride	10.7	0.25	0.01	mg/L	10.010		107	90-110			
Fluoride	10.7	0.30	0.02	mg/L	10.020		107	90-110			
Sulfate	10.5	1.0	0.05	mg/L	10.020		105	90-110			
Matrix Spike (6110434-MS1)		**Source: AZK0511-01**				Prepared: 11/16/16 Analyzed: 11/17/16					
Chloride	15.1	0.25	0.01	mg/L	10.010	6.40	87	90-110			QM-05
Fluoride	10.3	0.30	0.02	mg/L	10.020	0.18	101	90-110			
Sulfate	127	1.0	0.05	mg/L	10.020	130	NR	90-110			QM-02
Matrix Spike Dup (6110434-MSD1)		**Source: AZK0511-01**				Prepared: 11/16/16 Analyzed: 11/17/16					
Chloride	15.8	0.25	0.01	mg/L	10.010	6.40	94	90-110	4	15	
Fluoride	11.2	0.30	0.02	mg/L	10.020	0.18	110	90-110	8	15	
Sulfate	127	1.0	0.05	mg/L	10.020	130	NR	90-110	0.3	15	QM-02

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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 6110442 - EPA 7470A											
Blank (6110442-BLK1)						Prepared & Analyzed: 11/17/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6110442-BS1)						Prepared & Analyzed: 11/17/16					
Mercury	0.00252	0.00050	0.000041	mg/L	2.5000E-3		101	80-120			
Matrix Spike (6110442-MS1)		**Source: AZK0448-02**				Prepared & Analyzed: 11/17/16					
Mercury	0.00244	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125			
Matrix Spike Dup (6110442-MSD1)		**Source: AZK0448-02**				Prepared & Analyzed: 11/17/16					
Mercury	0.00244	0.00050	0.000041	mg/L	2.5000E-3	ND	97	75-125	0.2	20	
Post Spike (6110442-PS1)		**Source: AZK0448-02**				Prepared & Analyzed: 11/17/16					
Mercury	1.71			ug/L	1.6667	-0.0198	103	80-120			
Batch 6110444 - EPA 3005A											
Blank (6110444-BLK1)						Prepared & Analyzed: 11/17/16					
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	0.0176	0.0400	0.0064	mg/L							J
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	0.0037	0.0100	0.0009	mg/L							J
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	0.0064	0.0100	0.0021	mg/L							J
Lithium	ND	0.0500	0.0021	mg/L							

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Report No.: AZK0511

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110444 - EPA 3005A											
LCS (6110444-BS1)						Prepared & Analyzed: 11/17/16					
Antimony	0.104	0.0030	0.0008	mg/L	0.10000		104	80-120			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000		102	80-120			
Barium	0.100	0.0100	0.0004	mg/L	0.10000		100	80-120			
Beryllium	0.109	0.0030	0.00008	mg/L	0.10000		109	80-120			
Boron	1.12	0.0400	0.0064	mg/L	1.0000		112	80-120			
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000		102	80-120			
Calcium	1.01	0.500	0.0311	mg/L	1.0000		101	80-120			
Chromium	0.106	0.0100	0.0009	mg/L	0.10000		106	80-120			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Copper	0.0997	0.0250	0.0005	mg/L	0.10000		100	80-120			
Lead	0.101	0.0050	0.0001	mg/L	0.10000		101	80-120			
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000		104	80-120			
Nickel	0.104	0.0100	0.0006	mg/L	0.10000		104	80-120			
Selenium	0.0999	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000		104	80-120			
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000		106	80-120			
Zinc	0.103	0.0100	0.0021	mg/L	0.10000		103	80-120			
Lithium	0.112	0.0500	0.0021	mg/L	0.10000		112	80-120			
Matrix Spike (6110444-MS1)			**Source: AZK0511-02**			Prepared & Analyzed: 11/17/16					
Antimony	0.101	0.0030	0.0008	mg/L	0.10000	0.0014	99	75-125			
Arsenic	0.0931	0.0050	0.0016	mg/L	0.10000	ND	93	75-125			
Barium	0.113	0.0100	0.0004	mg/L	0.10000	0.0182	95	75-125			
Beryllium	0.102	0.0030	0.00008	mg/L	0.10000	0.000090	102	75-125			
Boron	1.29	0.0400	0.0064	mg/L	1.0000	0.287	101	75-125			
Cadmium	0.0989	0.0010	0.00007	mg/L	0.10000	0.000090	99	75-125			
Calcium	8.98	0.500	0.0311	mg/L	1.0000	7.79	119	75-125			
Chromium	0.0940	0.0100	0.0009	mg/L	0.10000	0.0035	91	75-125			
Cobalt	0.0917	0.0100	0.0005	mg/L	0.10000	ND	92	75-125			
Copper	0.0912	0.0250	0.0005	mg/L	0.10000	0.0008	90	75-125			
Lead	0.0979	0.0050	0.0001	mg/L	0.10000	0.0002	98	75-125			
Molybdenum	0.108	0.0100	0.0017	mg/L	0.10000	0.0071	101	75-125			
Nickel	0.0938	0.0100	0.0006	mg/L	0.10000	0.0011	93	75-125			
Selenium	0.0878	0.0100	0.0010	mg/L	0.10000	ND	88	75-125			
Silver	0.0941	0.0100	0.0005	mg/L	0.10000	ND	94	75-125			
Thallium	0.0982	0.0010	0.0002	mg/L	0.10000	ND	98	75-125			
Vanadium	0.0997	0.0100	0.0071	mg/L	0.10000	ND	100	75-125			
Zinc	0.0990	0.0100	0.0021	mg/L	0.10000	0.0052	94	75-125			
Lithium	0.117	0.0500	0.0021	mg/L	0.10000	0.0044	112	75-125			

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 22, 2016

Report No.: AZK0511

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110444 - EPA 3005A											
Matrix Spike Dup (6110444-MSD1)		**Source: AZK0511-02**			Prepared & Analyzed: 11/17/16						
Antimony	0.100	0.0030	0.0008	mg/L	0.10000	0.0014	99	75-125	0.6	20	
Arsenic	0.0918	0.0050	0.0016	mg/L	0.10000	ND	92	75-125	1	20	
Barium	0.111	0.0100	0.0004	mg/L	0.10000	0.0182	93	75-125	2	20	
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000	0.000090	104	75-125	1	20	
Boron	1.32	0.0400	0.0064	mg/L	1.0000	0.287	103	75-125	2	20	
Cadmium	0.0976	0.0010	0.00007	mg/L	0.10000	0.000090	97	75-125	1	20	
Calcium	8.31	0.500	0.0311	mg/L	1.0000	7.79	52	75-125	8	20	QM-02
Chromium	0.0918	0.0100	0.0009	mg/L	0.10000	0.0035	88	75-125	2	20	
Cobalt	0.0902	0.0100	0.0005	mg/L	0.10000	ND	90	75-125	2	20	
Copper	0.0891	0.0250	0.0005	mg/L	0.10000	0.0008	88	75-125	2	20	
Lead	0.0977	0.0050	0.0001	mg/L	0.10000	0.0002	97	75-125	0.2	20	
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000	0.0071	102	75-125	1	20	
Nickel	0.0914	0.0100	0.0006	mg/L	0.10000	0.0011	90	75-125	3	20	
Selenium	0.0863	0.0100	0.0010	mg/L	0.10000	ND	86	75-125	2	20	
Silver	0.0927	0.0100	0.0005	mg/L	0.10000	ND	93	75-125	2	20	
Thallium	0.0947	0.0010	0.0002	mg/L	0.10000	ND	95	75-125	4	20	
Vanadium	0.0947	0.0100	0.0071	mg/L	0.10000	ND	95	75-125	5	20	
Zinc	0.0973	0.0100	0.0021	mg/L	0.10000	0.0052	92	75-125	2	20	
Lithium	0.120	0.0500	0.0021	mg/L	0.10000	0.0044	116	75-125	3	20	
Post Spike (6110444-PS1)		**Source: AZK0511-02**			Prepared & Analyzed: 11/17/16						
Antimony	89.7			ug/L	100.00	1.35	88	80-120			
Arsenic	90.2			ug/L	100.00	-1.52	90	80-120			
Barium	111			ug/L	100.00	18.2	93	80-120			
Beryllium	102			ug/L	100.00	0.0900	102	80-120			
Boron	1330			ug/L	1000.0	287	104	80-120			
Cadmium	97.4			ug/L	100.00	0.0900	97	80-120			
Calcium	8260			ug/L	1000.0	7790	47	80-120			QM-02
Chromium	90.7			ug/L	100.00	3.52	87	80-120			
Cobalt	89.8			ug/L	100.00	0.310	89	80-120			
Copper	89.1			ug/L	100.00	0.760	88	80-120			
Lead	97.2			ug/L	100.00	0.230	97	80-120			
Molybdenum	109			ug/L	100.00	7.11	102	80-120			
Nickel	91.1			ug/L	100.00	1.07	90	80-120			
Selenium	86.1			ug/L	100.00	-5.71	86	80-120			
Silver	92.8			ug/L	100.00	0.0100	93	80-120			
Thallium	93.4			ug/L	100.00	0.0300	93	80-120			
Vanadium	95.7			ug/L	100.00	0.570	95	80-120			
Zinc	97.0			ug/L	100.00	5.17	92	80-120			
Lithium	121			ug/L	100.00	4.36	116	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

November 22, 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

R-01 Elevated reporting limit due to matrix interference.

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

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

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

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

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

CHAIN OF CUSTODY RECORD

Pace Analytical®

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 Phase II Facilities
PROJECT #: Phase 2 CCR

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	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:								P	P	P	P						
PRESERVATION:								3	7	3							
11-14-16	1120	GW		✓	YGWA-47	3		1	1	1						1	
11-14-16	1635	GW		✓	YGWC-36	3		1	1	1						2	
11-14-16	1330	GW		✓	YGWC-45	3		1	1	1						3	
11-14-16	—	GW		✓	DUP-1	3		1	1	1						4	
11-15-16	1035	GW		✓	YGWC-49	3		1	1	1						5	
11-15-16	1225	W		✓	FB-1-11-15-16	3		1	1	1						6	
11-15-16	1300	GW		✓	YGWC-44	3		1	1	1						7	

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 Parker ACC
DATE/TIME: 11-15-16 1500
RELINQUISHED BY: [signature]
DATE/TIME: 11-15-16 1538
RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:
RECEIVED BY LAB: [signature]
DATE/TIME: 11/15/16 1538
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (CLIENT) OTHER FS
Packed: No NA
Ice: (Yes) No NA
Temperature: 2°C Min: 2°C Max:
Custody Seal: (Intact) Broken Not Present
# of Coolers:
Cooler ID:
Tracking #:

FOR LAB USE ONLY
LAB #: A2K0511
Entered into LIMS: (PT

PACE ANALYTICAL SERVICES, INC.

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

LOG-IN CHECKLIST

Printed: 11/22/2016 3:46:02PM

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 11/15/16 15:38

Work Order: AZK0511
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 7 **#Containers:** 21

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

December 20, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Yates
Pace Project No.: 30202856

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 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 previous December 16, 2016 report. Report reissued to include the QC sheets that were omitted from the initial report.

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

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: Plant Yates
Pace Project No.: 30202856

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.: 30202856

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30202856002	**YGWC-36**	Water	11/14/16 16:35	11/16/16 11:55
30202856003	**YGWC-45**	Water	11/14/16 13:30	11/16/16 11:55
30202856004	**Dup-1**	Water	11/14/16 00:00	11/16/16 11:55
30202856005	**YGWC-49**	Water	11/15/16 10:35	11/16/16 11:55
30202856006	**FB-1-11-15-16**	Water	11/15/16 12:25	11/16/16 11:55
30202856007	**YGWC-44**	Water	11/15/16 13:00	11/16/16 11:55

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates
Pace Project No.: 30202856

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30202856002	**YGWC-36**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30202856003	**YGWC-45**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30202856004	**Dup-1**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30202856005	**YGWC-49**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30202856006	**FB-1-11-15-16**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30202856007	**YGWC-44**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30202856

Sample: YGWC-36 **Lab ID: 30202856002** Collected: 11/14/16 16:35 Received: 11/16/16 11:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0387 ± 0.162 (0.408) C:86% T:NA**	pCi/L	12/06/16 10:04	13982-63-3	
Radium-228	EPA 9320	**0.00642 ± 0.347 (0.741) C:68% T:89%**	pCi/L	12/16/16 19:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.0451 ± 0.509 (1.15)**	pCi/L	12/19/16 16:46	7440-14-4	

Sample: YGWC-45 **Lab ID: 30202856003** Collected: 11/14/16 13:30 Received: 11/16/16 11:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.614 ± 0.308 (0.424) C:91% T:NA**	pCi/L	12/06/16 10:04	13982-63-3	
Radium-228	EPA 9320	**0.367 ± 0.335 (0.644) C:66% T:89%**	pCi/L	12/16/16 19:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.981 ± 0.642 (1.07)**	pCi/L	12/19/16 16:46	7440-14-4	

Sample: Dup-1 **Lab ID: 30202856004** Collected: 11/14/16 00:00 Received: 11/16/16 11:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.182 ± 0.185 (0.333) C:75% T:NA**	pCi/L	12/07/16 08:32	13982-63-3	
Radium-228	EPA 9320	**0.724 ± 0.409 (0.715) C:65% T:84%**	pCi/L	12/16/16 19:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.906 ± 0.594 (1.05)**	pCi/L	12/19/16 16:46	7440-14-4	

Sample: YGWC-49 **Lab ID: 30202856005** Collected: 11/15/16 10:35 Received: 11/16/16 11:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.238 ± 0.263 (0.544) C:86% T:NA**	pCi/L	12/07/16 08:32	13982-63-3	
Radium-228	EPA 9320	**0.407 ± 0.387 (0.750) C:65% T:88%**	pCi/L	12/16/16 19:20	15262-20-1	
Total Radium	Total Radium Calculation	**0.645 ± 0.650 (1.29)**	pCi/L	12/19/16 16:46	7440-14-4	

Sample: FB-1-11-15-16 **Lab ID: 30202856006** Collected: 11/15/16 12:25 Received: 11/16/16 11:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.00377 ± 0.123 (0.349) C:90% T:NA**	pCi/L	12/07/16 08:32	13982-63-3	
Radium-228	EPA 9320	**0.497 ± 0.388 (0.733) C:63% T:94%**	pCi/L	12/16/16 19:15	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: Plant Yates
Pace Project No.: 30202856

Sample: FB-1-11-15-16 **Lab ID: 30202856006** Collected: 11/15/16 12:25 Received: 11/16/16 11:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.501 ± 0.511 (1.08)**	pCi/L	12/19/16 16:46	7440-14-4	

Sample: YGWC-44 **Lab ID: 30202856007** Collected: 11/15/16 13:00 Received: 11/16/16 11:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.195 ± 0.223 (0.460) C:88% T:NA**	pCi/L	12/07/16 08:32	13982-63-3	
Radium-228	EPA 9320	**0.481 ± 0.482 (0.942) C:58% T:83%**	pCi/L	12/16/16 19:15	15262-20-1	
Total Radium	Total Radium Calculation	**0.676 ± 0.705 (1.40)**	pCi/L	12/19/16 16:46	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.: 30202856

QC Batch: 241711 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30202856002, 30202856003

METHOD BLANK: 1188125 Matrix: Water
Associated Lab Samples: 30202856002, 30202856003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0212 ± 0.122 (0.323) C:95% T:NA	pCi/L	12/06/16 10:01	

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30202856

QC Batch: 241712 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30202856004, 30202856005, 30202856006, 30202856007

METHOD BLANK: 1188126 Matrix: Water
Associated Lab Samples: 30202856004, 30202856005, 30202856006, 30202856007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.104 ± 0.157 (0.342) C:95% T:NA	pCi/L	12/07/16 09:29	

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: Plant Yates
Pace Project No.: 30202856

QC Batch: 242657 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30202856002, 30202856003, 30202856004, 30202856005, 30202856006, 30202856007

METHOD BLANK: 1192648 Matrix: Water
Associated Lab Samples: 30202856002, 30202856003, 30202856004, 30202856005, 30202856006, 30202856007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0888 ± 0.377 (0.792) C:63% T:86%	pCi/L	12/16/16 19:19	

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: Plant Yates
Pace Project No.: 30202856

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# : 30202856

30202856

Chain of Custody

Pace Analytical

Workorder: AZK0511 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 12/16/2016

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	YGWA-47	G	11/14/2016 11:20	AZK0511-01	GW	1	X	001
2	YGWC-36	G	11/14/2016 16:35	AZK0511-02	GW	1	X	002
3	YGWC-45	G	11/14/2016 13:30	AZK0511-03	GW	1	X	003
4	Dup-1	G	11/14/2016 0:00	AZK0511-04	GW	1	X	004
5	YGWC-49	G	11/15/2016 10:35	AZK0511-05	GW	1	X	005
6	FB-1-11-15-16	G	11/15/2016 12:25	AZK0511-06	W	1	X	006
7	YGWC-44	G	11/15/2016 13:00	AZK0511-07	GW	1	X	007
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Karen Hix	11-16-16 1155	
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.

30202856

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 Phase II Facilities
PROJECT #: Phase 2 CCR

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	
11-14-16	1120	GW		✓	YGWA-47	3	1	1	1	1
11-14-16	1635	GW		✓	YGWC-36	3	1	1	1	2
11-14-16	1330	GW		✓	YGWC-45	3	1	1	1	3
11-14-16	—	GW		✓	DUP-1	3	1	1	1	4
11-15-16	1035	GW		✓	YGWC-49	3	1	1	1	5
11-15-16	1225	W		✓	FB-1-11-15-16	3	1	1	1	6
11-15-16	1300	GW		✓	YGWC-44	3	1	1	1	7

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: Chris Parker ACC
DATE/TIME: 11-15-16 1500
RELINQUISHED BY: [signature]
DATE/TIME: 11-15-16 1538
RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:
RECEIVED BY LAB: [signature]
DATE/TIME: 11/15/16 1538
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
pH checked: Yes No NA to
Ice: Yes No NA
Temperature: 2°C Min 2°C Max
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: A20511
Entered into LIMS: [initials]
Tracking #:

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace Georgia Project # 30202856

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

Tracking #: 6812 5100 4285

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

Thermometer Used NA Type of Ice: Wet Blue (None)

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 11-17-16

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: 11-17-16

Client Notification/ Resolution:

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

Comments/ Resolution: One 1/2 gallon per sample Fed Ex Express 11-16-16 1155

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

Test: Ra-226
Analyst: LAL
Date: 12/6/2016
Worklist: 32687
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1188126
MB concentration:	0.104
M/B Counting Uncertainty:	0.157
MB MDC:	0.342
MB Numerical Performance Indicator:	1.31
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS32687	LCSD32687
Count Date:	12/7/2016	
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):	8.916	
Uncertainty (Calculated):	0.419	
Result (pCi/L, g, F):	8.412	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.879	
Numerical Performance Indicator:	-1.01	
Percent Recovery:	94.35%	
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.:	30203117004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30203117004DUP	
Sample Result (pCi/L, g, F):	0.107	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.171	
Sample Duplicate Result (pCi/L, g, F):	0.356	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.245	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.635	30203117004
Duplicate RPD:	107.69%	30203117004DUP
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:

2xMDC

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

12/20/16

Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: JAL
Date: 12/12/2016
Worklist: 32864
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1192648
MB concentration:	0.089
M/B Counting Uncertainty:	0.377
MB MDC:	0.792
MB Numerical Performance Indicator:	0.46
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32864	LCSD32864
Count Date:	12/16/2016	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.807	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.801	
Target Conc. (pCi/L, g, F):	6.441	
Uncertainty (Calculated):	0.464	
Result (pCi/L, g, F):	8.521	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.711	
Numerical Performance Indicator:	4.80	
Percent Recovery:	132.29%	
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		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	30202831001	
Duplicate Sample I.D.	30202831001DUP	
Sample Result (pCi/L, g, F):	0.133	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.364	
Sample Duplicate Result (pCi/L, g, F):	0.543	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.380	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.527	30202831001
Duplicate RPD:	121.16%	30202831001DUP
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.

12/12/16

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	12/5/2016
Worklist:	32686
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1188125
MB concentration:	0.021
M/B Counting Uncertainty:	0.122
MB MDC:	0.323
MB Numerical Performance Indicator:	0.34
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32686	LCSD32686
Count Date:	12/6/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.673	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.502	
Target Conc. (pCi/L, g, F):	8.900	
Uncertainty (Calculated):	0.419	
Result (pCi/L, g, F):	8.003	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.944	
Numerical Performance Indicator:	-1.70	
Percent Recovery:	89.92%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Duplicate Sample Assessment		
Sample I.D.:	30202498008	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30202498008DUP	
Sample Result (pCi/L, g, F):	-0.014	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.133	
Sample Duplicate Result (pCi/L, g, F):	0.351	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.210	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-2.878	30202498008
Duplicate RPD:	216.23%	30202498008DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

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:

LMPC

12/20/16

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

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: AZK0570
December 05, 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 05, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWC-46	AZK0570-01	Ground Water	11/16/16 10:05	11/17/16 09:50
YGWC-42	AZK0570-02	Ground Water	11/16/16 13:05	11/17/16 09:50
EB-1-11-16-16	AZK0570-03	Water	11/16/16 14:10	11/17/16 09:50
YGWC-43	AZK0570-04	Ground Water	11/16/16 15:05	11/17/16 09:50

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 05, 2016

Report No.: AZK0570
Client ID: YGWC-46
Date/Time Sampled: 11/16/2016 10:05:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0570-01
Date/Time Received: 11/17/2016 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1220	25	10	mg/L	SM 2540 C		1	11/18/16 14:30	11/18/16 14:30	6110490	JPT
Inorganic Anions											
Chloride	37	0.25	0.01	mg/L	EPA 300.0		1	11/18/16 15:35	11/20/16 08:52	6110512	RLC
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 08:52	6110512	RLC
Sulfate	780	50	2.6	mg/L	EPA 300.0		50	11/18/16 15:35	11/20/16 10:37	6110512	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Barium	0.0365	0.0100	0.0004	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/21/16 10:15	11/29/16 18:38	6110508	CSW
Boron	2.03	0.400	0.0642	mg/L	EPA 6020B		10	11/21/16 10:15	12/01/16 12:00	6110508	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Calcium	107	25.0	1.55	mg/L	EPA 6020B		50	11/21/16 10:15	12/01/16 13:47	6110508	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Cobalt	0.0145	0.0100	0.0005	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Lithium	0.0075	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/22/16 10:15	11/22/16 14:53	6110560	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570
Client ID: YGWC-42
Date/Time Sampled: 11/16/2016 1:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0570-02
Date/Time Received: 11/17/2016 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1420	25	10	mg/L	SM 2540 C		1	11/18/16 14:30	11/18/16 14:30	6110490	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.01	mg/L	EPA 300.0		1	11/18/16 15:35	11/20/16 10:58	6110512	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 10:58	6110512	RLC
Sulfate	940	50	2.6	mg/L	EPA 300.0		50	11/18/16 15:35	11/20/16 11:19	6110512	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Arsenic	0.0017	0.0050	0.0016	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Barium	0.0541	0.0100	0.0004	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/21/16 10:15	11/29/16 18:43	6110508	CSW
Boron	16.4	2.00	0.321	mg/L	EPA 6020B		50	11/21/16 10:15	12/01/16 13:53	6110508	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Calcium	125	25.0	1.55	mg/L	EPA 6020B		50	11/21/16 10:15	12/01/16 13:53	6110508	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Cobalt	0.0020	0.0100	0.0005	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Molybdenum	0.0027	0.0100	0.0017	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Selenium	0.0313	0.0100	0.0010	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Lithium	0.0221	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/22/16 10:15	11/22/16 14:56	6110560	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570
Client ID: EB-1-11-16-16
Date/Time Sampled: 11/16/2016 2:10:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZK0570-03
Date/Time Received: 11/17/2016 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	11/18/16 14:30	11/18/16 14:30	6110490	JPT
Inorganic Anions											
Chloride	0.06	0.25	0.01	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 11:41	6110512	RLC
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 11:41	6110512	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	11/18/16 15:35	11/20/16 11:41	6110512	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/21/16 10:15	11/29/16 18:49	6110508	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	11/21/16 10:15	12/02/16 13:17	6110508	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Calcium	0.0507	0.500	0.0311	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/22/16 10:15	11/22/16 14:58	6110560	MTC

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Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570
Client ID: YGWC-43
Date/Time Sampled: 11/16/2016 3:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZK0570-04
Date/Time Received: 11/17/2016 9:50:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	112	25	10	mg/L	SM 2540 C		1	11/18/16 14:30	11/18/16 14:30	6110490	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	11/18/16 15:35	11/20/16 12:02	6110512	RLC
Fluoride	0.20	0.30	0.02	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 12:02	6110512	RLC
Sulfate	240	5.0	0.26	mg/L	EPA 300.0		5	11/18/16 15:35	11/20/16 16:38	6110512	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Barium	0.0092	0.0100	0.0004	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/21/16 10:15	11/29/16 18:55	6110508	CSW
Boron	0.406	0.0400	0.0064	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Calcium	3.79	0.500	0.0311	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Lithium	0.0095	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/22/16 10:15	11/22/16 15:01	6110560	MTC

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Report No.: AZK0570

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110490 - SM 2540 C											
Blank (6110490-BLK1)						Prepared & Analyzed: 11/18/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6110490-BS1)						Prepared & Analyzed: 11/18/16					
Total Dissolved Solids	382	25	10	mg/L	400.00		96	84-108			
Duplicate (6110490-DUP1)		**Source: AZK0570-03**				Prepared & Analyzed: 11/18/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (6110490-DUP2)		**Source: AZK0570-04**				Prepared & Analyzed: 11/18/16					
Total Dissolved Solids	110	25	10	mg/L		112			2	10	

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Report No.: AZK0570

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110512 - EPA 300.0											
Blank (6110512-BLK1)						Prepared: 11/18/16 Analyzed: 11/20/16					
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 (6110512-BS1)						Prepared: 11/18/16 Analyzed: 11/20/16					
Chloride	10.3	0.25	0.01	mg/L	10.010		103	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.020		103	90-110			
Sulfate	10.1	1.0	0.05	mg/L	10.020		101	90-110			
Matrix Spike (6110512-MS1)		**Source: AZK0545-01**				Prepared: 11/18/16 Analyzed: 11/20/16					
Chloride	11.5	0.25	0.01	mg/L	10.010	2.34	91	90-110			
Fluoride	9.23	0.30	0.02	mg/L	10.020	0.04	92	90-110			
Sulfate	9.46	1.0	0.05	mg/L	10.020	0.49	90	90-110			
Matrix Spike (6110512-MS2)		**Source: AZK0637-01**				Prepared: 11/18/16 Analyzed: 11/20/16					
Chloride	10.5	0.25	0.01	mg/L	10.010	1.17	93	90-110			
Fluoride	9.72	0.30	0.02	mg/L	10.020	0.02	97	90-110			
Sulfate	11.1	1.0	0.05	mg/L	10.020	1.85	92	90-110			
Matrix Spike Dup (6110512-MSD1)		**Source: AZK0545-01**				Prepared: 11/18/16 Analyzed: 11/20/16					
Chloride	12.2	0.25	0.01	mg/L	10.010	2.34	98	90-110	6	15	
Fluoride	10.0	0.30	0.02	mg/L	10.020	0.04	99	90-110	8	15	
Sulfate	10.2	1.0	0.05	mg/L	10.020	0.49	96	90-110	7	15	

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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 6110508 - EPA 3005A											
Blank (6110508-BLK1)						Prepared: 11/21/16 Analyzed: 11/23/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	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 (6110508-BS1)						Prepared: 11/21/16 Analyzed: 11/23/16					
Antimony	0.114	0.0030	0.0008	mg/L	0.10000		114	80-120			
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000		105	80-120			
Barium	0.103	0.0100	0.0004	mg/L	0.10000		103	80-120			
Beryllium	0.0973	0.0030	0.00008	mg/L	0.10000		97	80-120			
Boron	0.978	0.0400	0.0064	mg/L	1.0000		98	80-120			
Cadmium	0.106	0.0010	0.00007	mg/L	0.10000		106	80-120			
Calcium	1.10	0.500	0.0311	mg/L	1.0000		110	80-120			
Chromium	0.107	0.0100	0.0009	mg/L	0.10000		107	80-120			
Cobalt	0.108	0.0100	0.0005	mg/L	0.10000		108	80-120			
Copper	0.103	0.0250	0.0005	mg/L	0.10000		103	80-120			
Lead	0.106	0.0050	0.0001	mg/L	0.10000		106	80-120			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000		109	80-120			
Nickel	0.105	0.0100	0.0006	mg/L	0.10000		105	80-120			
Selenium	0.116	0.0100	0.0010	mg/L	0.10000		116	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	0.105	0.0100	0.0071	mg/L	0.10000		105	80-120			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000		108	80-120			
Lithium	0.0972	0.0500	0.0021	mg/L	0.10000		97	80-120			

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Report No.: AZK0570

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110508 - EPA 3005A											
Matrix Spike (6110508-MS1)		**Source: AZK0570-01**			Prepared: 11/21/16 Analyzed: 11/23/16						
Antimony	0.114	0.0030	0.0008	mg/L	0.10000	ND	114	75-125			
Arsenic	0.109	0.0050	0.0016	mg/L	0.10000	ND	109	75-125			
Barium	0.141	0.0100	0.0004	mg/L	0.10000	0.0365	104	75-125			
Beryllium	0.0932	0.0030	0.00008	mg/L	0.10000	ND	93	75-125			
Boron	2.83	2.00	0.321	mg/L	1.0000	2.03	80	75-125			
Cadmium	0.0998	0.0010	0.00007	mg/L	0.10000	ND	100	75-125			
Calcium	107	25.0	1.55	mg/L	1.0000	107	NR	75-125			QM-02
Chromium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125			
Cobalt	0.116	0.0100	0.0005	mg/L	0.10000	0.0145	101	75-125			
Copper	0.0931	0.0250	0.0005	mg/L	0.10000	ND	93	75-125			
Lead	0.0987	0.0050	0.0001	mg/L	0.10000	ND	99	75-125			
Molybdenum	0.110	0.0100	0.0017	mg/L	0.10000	ND	110	75-125			
Nickel	0.108	0.0100	0.0006	mg/L	0.10000	0.0109	97	75-125			
Selenium	0.116	0.0100	0.0010	mg/L	0.10000	ND	116	75-125			
Silver	0.0975	0.0100	0.0005	mg/L	0.10000	ND	98	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	0.101	0.0100	0.0021	mg/L	0.10000	0.0024	99	75-125			
Lithium	0.0949	0.0500	0.0021	mg/L	0.10000	0.0075	87	75-125			
Matrix Spike Dup (6110508-MSD1)		**Source: AZK0570-01**			Prepared: 11/21/16 Analyzed: 11/23/16						
Antimony	0.115	0.0030	0.0008	mg/L	0.10000	ND	115	75-125	1	20	
Arsenic	0.110	0.0050	0.0016	mg/L	0.10000	ND	110	75-125	0.6	20	
Barium	0.140	0.0100	0.0004	mg/L	0.10000	0.0365	103	75-125	0.7	20	
Beryllium	0.0916	0.0030	0.00008	mg/L	0.10000	ND	92	75-125	2	20	
Boron	2.80	2.00	0.321	mg/L	1.0000	2.03	77	75-125	0.9	20	
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125	2	20	
Calcium	106	25.0	1.55	mg/L	1.0000	107	NR	75-125	1	20	QM-02
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	ND	105	75-125	3	20	
Cobalt	0.112	0.0100	0.0005	mg/L	0.10000	0.0145	97	75-125	3	20	
Copper	0.0953	0.0250	0.0005	mg/L	0.10000	ND	95	75-125	2	20	
Lead	0.101	0.0050	0.0001	mg/L	0.10000	ND	101	75-125	2	20	
Molybdenum	0.114	0.0100	0.0017	mg/L	0.10000	ND	114	75-125	3	20	
Nickel	0.107	0.0100	0.0006	mg/L	0.10000	0.0109	97	75-125	0.7	20	
Selenium	0.120	0.0100	0.0010	mg/L	0.10000	ND	120	75-125	3	20	
Silver	0.0992	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	2	20	
Thallium	0.101	0.0010	0.0002	mg/L	0.10000	ND	101	75-125	1	20	
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125	0.08	20	
Zinc	0.102	0.0100	0.0021	mg/L	0.10000	0.0024	99	75-125	0.5	20	
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	0.0075	94	75-125	7	20	

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Attention: Mr. Joju Abraham

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Report No.: AZK0570

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110508 - EPA 3005A											
Post Spike (6110508-PS1)			**Source: AZK0570-01**			Prepared: 11/21/16 Analyzed: 11/23/16					
Antimony	112			ug/L	100.00	0.240	111	80-120			
Arsenic	106			ug/L	100.00	0.856	105	80-120			
Barium	135			ug/L	100.00	36.5	99	80-120			
Beryllium	94.1			ug/L	100.00	0.0351	94	80-120			
Boron	2720			ug/L	1000.0	2030	69	80-120			QM-02
Cadmium	97.9			ug/L	100.00	0.0406	98	80-120			
Calcium	104000			ug/L	1000.0	107000	NR	80-120			QM-02
Chromium	102			ug/L	100.00	0.298	102	80-120			
Cobalt	113			ug/L	100.00	14.5	99	80-120			
Copper	93.4			ug/L	100.00	0.0318	93	80-120			
Lead	95.7			ug/L	100.00	0.0679	96	80-120			
Molybdenum	108			ug/L	100.00	0.953	107	80-120			
Nickel	110			ug/L	100.00	10.9	99	80-120			
Selenium	117			ug/L	100.00	0.746	116	80-120			
Silver	97.5			ug/L	100.00	0.0337	97	80-120			
Thallium	97.9			ug/L	100.00	0.125	98	80-120			
Vanadium	107			ug/L	100.00	-0.396	107	80-120			
Zinc	104			ug/L	100.00	2.37	101	80-120			
Lithium	104			ug/L	100.00	7.51	97	80-120			
Batch 6110560 - EPA 7470A											
Blank (6110560-BLK1)						Prepared & Analyzed: 11/22/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6110560-BS1)						Prepared & Analyzed: 11/22/16					
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			

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 05, 2016

Report No.: AZK0570

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110560 - EPA 7470A											
Matrix Spike (6110560-MS1)			**Source: AZK0639-05**			Prepared & Analyzed: 11/22/16					
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (6110560-MSD1)			**Source: AZK0639-05**			Prepared & Analyzed: 11/22/16					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125	0.9	20	
Post Spike (6110560-PS1)			**Source: AZK0639-05**			Prepared & Analyzed: 11/22/16					
Mercury	1.69			ug/L	1.6667	-0.00940	102	80-120			

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 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).

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 Phase II Facilities
PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE M-D-Y	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	P					
PRESERVATION:								3	7	3						
11-16-16	1005	GW		✓	YGWC-46	3		1	1	1						1
11-16-16	1305	GW		✓	YGWC-42	3		1	1	1						2
11-16-16	1410	W		✓	EB-1-11-16-16	3		1	1	1						3
11-16-16	1505	GW		✓	YGWC-43	4		1	1	2						4

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: Chris Parker ACC
DATE/TIME: 11-16-16 1600
RELINQUISHED BY:
DATE/TIME: 11-17-16 0950

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

RECEIVED BY LAB: Mallman
DATE/TIME: 11/17/16 0950
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 #: A2K0570
Entered into LIMS: MR
Tracking #:

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: 12/5/2016 2:15:38PM

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 11/17/16 09:50

Work Order: AZK0570
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:

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

December 22, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Yates
Pace Project No.: 30203117

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on November 18, 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.: 30203117

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.: 30203117

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30203117001	**YGWC-46**	Water	11/16/16 10:05	11/18/16 11:40
30203117002	**YGWC-42**	Water	11/16/16 13:05	11/18/16 11:40
30203117003	**EB-1-11-16-16**	Water	11/16/16 14:10	11/18/16 11:40
30203117004	**YGWC-43**	Water	11/16/16 15:05	11/18/16 11:40

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Yates
Pace Project No.: 30203117

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30203117001	**YGWC-46**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30203117002	**YGWC-42**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30203117003	**EB-1-11-16-16**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30203117004	**YGWC-43**	EPA 9315	LAL	1
		EPA 9320	JAL	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: Plant Yates
Pace Project No.: 30203117

Sample: YGWC-46 **Lab ID: 30203117001** Collected: 11/16/16 10:05 Received: 11/18/16 11:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.380 ± 0.406 (0.776) C:91% T:NA**	pCi/L	12/07/16 10:57	13982-63-3	
Radium-228	EPA 9320	**0.259 ± 0.564 (1.16) C:64% T:82%**	pCi/L	12/21/16 19:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.639 ± 0.970 (1.94)**	pCi/L	12/22/16 16:27	7440-14-4	

Sample: YGWC-42 **Lab ID: 30203117002** Collected: 11/16/16 13:05 Received: 11/18/16 11:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**2.60 ± 0.644 (0.397) C:91% T:NA**	pCi/L	12/07/16 10:57	13982-63-3	
Radium-228	EPA 9320	**1.41 ± 0.565 (0.865) C:65% T:78%**	pCi/L	12/21/16 19:39	15262-20-1	
Total Radium	Total Radium Calculation	**4.01 ± 1.21 (1.26)**	pCi/L	12/22/16 16:27	7440-14-4	

Sample: EB-1-11-16-16 **Lab ID: 30203117003** Collected: 11/16/16 14:10 Received: 11/18/16 11:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0989 ± 0.142 (0.301) C:96% T:NA**	pCi/L	12/07/16 10:57	13982-63-3	
Radium-228	EPA 9320	**0.698 ± 0.476 (0.877) C:63% T:87%**	pCi/L	12/21/16 19:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.797 ± 0.618 (1.18)**	pCi/L	12/22/16 16:27	7440-14-4	

Sample: YGWC-43 **Lab ID: 30203117004** Collected: 11/16/16 15:05 Received: 11/18/16 11:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.107 ± 0.171 (0.374) C:70% T:NA**	pCi/L	12/07/16 10:57	13982-63-3	
Radium-228	EPA 9320	**0.666 ± 0.431 (0.780) C:65% T:85%**	pCi/L	12/21/16 19:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.773 ± 0.602 (1.15)**	pCi/L	12/22/16 16:27	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.: 30203117

QC Batch: 241712 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30203117001, 30203117002, 30203117003, 30203117004

METHOD BLANK: 1188126 Matrix: Water
Associated Lab Samples: 30203117001, 30203117002, 30203117003, 30203117004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.104 ± 0.157 (0.342) C:95% T:NA	pCi/L	12/07/16 09:29	

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: Plant Yates
Pace Project No.: 30203117

QC Batch: 242658 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30203117001, 30203117002, 30203117003, 30203117004

METHOD BLANK: 1192650 Matrix: Water
Associated Lab Samples: 30203117001, 30203117002, 30203117003, 30203117004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.455 ± 0.420 (0.810) C:64% T:90%	pCi/L	12/21/16 19:39	

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

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

QUALIFIERS

Project: Plant Yates
Pace Project No.: 30203117

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.

SAMPLE QUALIFIERS

Sample: 30203117001

[1] Low volume, client notified. Client advised to proceed.

REPORT OF LABORATORY ANALYSIS

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AZK0570 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 12/20/2016

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	YGWC-46	G	11/16/2016 10:05	AZK0570-01	GW	1					X												001
2	YGWC-42	G	11/16/2016 13:05	AZK0570-02	GW	1					X												002
3	EB-1-11-16-16	G	11/16/2016 14:10	AZK0570-03	W	1					X												003
4	YGWC-43	G	11/16/2016 15:05	AZK0570-04	GW	2					X												004
5																							
6																							
7																							
8																							
9																							
10																							

WO#:30203117

30203117

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Karen Hill	11-18-16 1140	
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.

30203117

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 Phase II Facilities

PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE M-D-Y	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	P					
PRESERVATION:								3	7	3						
11-16-16	1005	GW		✓	YGWC-46	3		1	1	1						1
11-16-16	1305	GW		✓	YGWC-42	3		1	1	1						2
11-16-16	1410	W		✓	EB-1-11-16-16	3		1	1	1						3
11-16-16	1505	GW		✓	YGWC-43	4		1	1	2						4

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: Chris Packer ACC
DATE/TIME: 11-16-16 1600
RELINQUISHED BY: [signature]
DATE/TIME: 11-17-16 0950

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

FOR LAB USE ONLY
LAB #: AZK0570
Entered into LIMS: MR

RECEIVED BY LAB: Maltman
DATE/TIME: 11/17/16 0950

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:

Tracking #:

Sample Condition Upon Receipt Pittsburgh

Face Analytical

30203117

Client Name: Pace Georgia Project #

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

Tracking #: 6812 5100 4790

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

Thermometer Used NA Type of Ice: Wet Blue (None)

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 11-19-16

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. Low volume in sample 001. ~half the 1/2 gallon full
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 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: 11-19-16

Client Notification/ Resolution:

Person Contacted: Madison Date/Time: 11/21/16 15:45 Contacted By:

Comments/ Resolution: Proceed at Lab discretion per client.

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:	12/6/2016
Worklist:	32687
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1188126
MB concentration:	0.104
M/B Counting Uncertainty:	0.157
MB MDC:	0.342
MB Numerical Performance Indicator:	1.31
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS32687	LCSD32687
Count Date:	12/7/2016	
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):	8.916	
Uncertainty (Calculated):	0.419	
Result (pCi/L, g, F):	8.412	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.879	
Numerical Performance Indicator:	-1.01	
Percent Recovery:	94.35%	
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

		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	30203117004	
Duplicate Sample I.D.	30203117004DUP	
Sample Result (pCi/L, g, F):	0.107	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.171	
Sample Duplicate Result (pCi/L, g, F):	0.356	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.245	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	* -1.635	30203117004
Duplicate RPD:	107.69%	30203117004DUP
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: * Numerical Indicator is acceptable.

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

12/22/16

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JAL
Date:	12/15/2016
Worklist:	32865
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1192650
MB concentration:	0.455
M/B Counting Uncertainty:	0.412
MB MDC:	0.810
MB Numerical Performance Indicator:	2.17
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32865	LCSD32865
Count Date:	12/21/2016	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.764	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.799	
Target Conc. (pCi/L, g, F):	6.448	
Uncertainty (Calculated):	0.464	
Result (pCi/L, g, F):	6.959	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.802	
Numerical Performance Indicator:	1.08	
Percent Recovery:	107.92%	
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.:	30203120001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30203120001DUP	
Sample Result (pCi/L, g, F):	0.579	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.423	
Sample Duplicate Result (pCi/L, g, F):	0.205	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.366	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	1.308 *	30203120001
Duplicate RPD:	95.27%	30203120001DUP
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: * Numerical Indicator is acceptable.

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

12/22/16

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: AAB0913
March 08, 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 08, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AAB0913-01	Ground Water	02/24/17 12:00	02/27/17 15:15
YGWC-43	AAB0913-02	Ground Water	02/24/17 14:10	02/27/17 15:15
YGWC-45	AAB0913-03	Ground Water	02/27/17 10:45	02/27/17 15:15
YGWC-42	AAB0913-04	Ground Water	02/27/17 10:50	02/27/17 15:15
YGWC-46	AAB0913-05	Ground Water	02/27/17 12:20	02/27/17 15:15
EB-1-2-27-17	AAB0913-06	Water	02/27/17 11:40	02/27/17 15:15
Dup-1	AAB0913-07	Ground Water	02/27/17 00:00	02/27/17 15:15

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913
Client ID: YGWA-47
Date/Time Sampled: 2/24/2017 12:00:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0913-01
Date/Time Received: 2/27/2017 3:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	162	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	5.5	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 09:08	7030132	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 09:08	7030132	RLC
Sulfate	120	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/06/17 22:55	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Barium	0.0351	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Boron	0.0145	0.0400	0.0064	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Cadmium	0.00009	0.0010	0.00007	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Calcium	16.1	2.50	0.155	mg/L	EPA 6020B		5	03/01/17 09:10	03/06/17 19:07	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Cobalt	0.0106	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Selenium	0.0011	0.0100	0.0010	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Lithium	0.0049	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:21	7020859	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913
Client ID: YGWC-43
Date/Time Sampled: 2/24/2017 2:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0913-02
Date/Time Received: 2/27/2017 3:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	147	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 10:10	7030132	RLC
Fluoride	0.21	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 10:10	7030132	RLC
Sulfate	89	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/06/17 23:16	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Barium	0.0144	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Boron	0.725	0.0400	0.0064	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Calcium	6.42	0.500	0.0311	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 18:59	7020867	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 18:59	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Lithium	0.0104	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 18:59	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:23	7020859	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913
Client ID: YGWC-45
Date/Time Sampled: 2/27/2017 10:45:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0913-03
Date/Time Received: 2/27/2017 3:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	346	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	5.0	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 10:32	7030132	RLC
Fluoride	0.22	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 10:32	7030132	RLC
Sulfate	190	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/06/17 23:37	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Barium	0.0834	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Boron	0.321	0.0400	0.0064	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Calcium	49.4	25.0	1.55	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 21:28	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:12	7020867	CSW
Cobalt	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:12	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Molybdenum	0.0018	0.0100	0.0017	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Lithium	0.0135	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:12	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:26	7020859	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913
Client ID: YGWC-42
Date/Time Sampled: 2/27/2017 10:50:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0913-04
Date/Time Received: 2/27/2017 3:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1640	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 10:53	7030132	RLC
Fluoride	0.06	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 10:53	7030132	RLC
Sulfate	940	100	9.2	mg/L	EPA 300.0		100	03/05/17 16:25	03/06/17 23:58	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Arsenic	0.0020	0.0050	0.0016	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Barium	0.0573	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Boron	17.9	2.00	0.321	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 21:40	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Calcium	139	25.0	1.55	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 21:40	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:18	7020867	CSW
Cobalt	0.0021	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:18	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Molybdenum	0.0031	0.0100	0.0017	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Selenium	0.0316	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Lithium	0.0208	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:18	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:28	7020859	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 08, 2017

Report No.: AAB0913
Client ID: YGWC-46
Date/Time Sampled: 2/27/2017 12:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0913-05
Date/Time Received: 2/27/2017 3:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1060	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	33	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 11:35	7030132	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 11:35	7030132	RLC
Sulfate	650	100	9.2	mg/L	EPA 300.0		100	03/05/17 16:25	03/07/17 00:20	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Barium	0.0326	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Boron	1.29	0.0400	0.0064	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Calcium	104	25.0	1.55	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 21:51	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:24	7020867	CSW
Cobalt	0.0161	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:24	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Lithium	0.0084	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:24	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:35	7020859	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913
Client ID: EB-1-2-27-17
Date/Time Sampled: 2/27/2017 11:40:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAB0913-06
Date/Time Received: 2/27/2017 3:15:00PM

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	03/05/17 16:25	03/06/17 11:56	7030132	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 11:56	7030132	RLC
Sulfate	0.23	1.0	0.09	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 11:56	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Boron	0.0071	0.0400	0.0064	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Calcium	0.0471	0.500	0.0311	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:30	7020867	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:30	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:30	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:38	7020859	MTC

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Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913
Client ID: Dup-1
Date/Time Sampled: 2/27/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0913-07
Date/Time Received: 2/27/2017 3:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1100	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	33	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 12:18	7030132	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 12:18	7030132	RLC
Sulfate	720	100	9.2	mg/L	EPA 300.0		100	03/05/17 16:25	03/07/17 00:41	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Barium	0.0336	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Boron	1.29	0.0400	0.0064	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Calcium	105	25.0	1.55	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 22:20	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:36	7020867	CSW
Cobalt	0.0157	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:36	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Lithium	0.0083	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:36	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:40	7020859	MTC

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March 08, 2017

Report No.: AAB0913

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											
Blank (7030016-BLK1)						Prepared & Analyzed: 03/01/17					
Total Dissolved Solids	ND	25	10	mg/L							
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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Report No.: AAB0913

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030132 - EPA 300.0											
Blank (7030132-BLK1)						Prepared: 03/05/17 Analyzed: 03/06/17					
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 (7030132-BS1)						Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	9.75	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	9.95	1.0	0.09	mg/L	10.020		99	90-110			
Matrix Spike (7030132-MS1)		**Source: AAB0913-01**				Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	15.1	0.25	0.01	mg/L	10.010	5.47	96	90-110			
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.05	105	90-110			
Sulfate	105	1.0	0.09	mg/L	10.020	107	NR	90-110			QM-02
Matrix Spike (7030132-MS2)		**Source: AAB0913-04**				Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	14.3	0.25	0.01	mg/L	10.010	4.69	96	90-110			
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.06	106	90-110			
Sulfate	399	1.0	0.09	mg/L	10.020	422	NR	90-110			QM-02
Matrix Spike Dup (7030132-MSD1)		**Source: AAB0913-01**				Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	15.1	0.25	0.01	mg/L	10.010	5.47	96	90-110	0.07	15	
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.05	105	90-110	0.1	15	
Sulfate	105	1.0	0.09	mg/L	10.020	107	NR	90-110	0.04	15	QM-02

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Report No.: AAB0913

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020859 - EPA 7470A											
Blank (7020859-BLK1)						Prepared & Analyzed: 03/01/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7020859-BS1)						Prepared & Analyzed: 03/01/17					
Mercury	0.00243	0.00050	0.000041	mg/L	2.5000E-3		97	80-120			
Matrix Spike (7020859-MS1)		**Source: AAB0889-02**				Prepared & Analyzed: 03/01/17					
Mercury	0.00226	0.00050	0.000041	mg/L	2.5000E-3	ND	90	75-125			
Matrix Spike Dup (7020859-MSD1)		**Source: AAB0889-02**				Prepared & Analyzed: 03/01/17					
Mercury	0.00226	0.00050	0.000041	mg/L	2.5000E-3	ND	91	75-125	0.4	20	
Post Spike (7020859-PS1)		**Source: AAB0889-02**				Prepared & Analyzed: 03/01/17					
Mercury	1.60			ug/L	1.6667	0.0123	95	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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Report No.: AAB0913

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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Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913

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			

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 08, 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 AP

PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE M-DD-YY	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals App. III & IV (EPA 6020/7470) P 3	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C) P 7	Radium 226 & 228 (SW-846 9315/9320) P 3							LAB ID NUMBER
2-24-17	1200	GW		✓	YGWA-47	4		1	1	2							1
2-24-17	1410	GW		✓	YGWC-43	4		1	1	2							2
2-27-17	1045	GW		✓	YGWC-45	4		1	1	2							3
2-27-17	1050	GW		✓	YGWC-42	4		1	1	2							4
2-27-17	1220	GW		✓	YGWC-46	4		1	1	2							5
2-27-17	1140	W		✓	EB-1-2-27-17	4		1	1	2							6
2-27-17	—	GW		✓	DUP-1	4		1	1	2							7

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: C. Parker, R. Walker (ACC) — DATE/TIME: 2-27-17 / 1330

RELINQUISHED BY: — DATE/TIME: 2-27-17 1515

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: M Latimore — DATE/TIME: 02/27/17 1515

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 #: AA09013

Entered into LIMS: MR

Tracking #:

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: 2/28/2017 2:37:20PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 02/27/17 15:15

Work Order: AAB0913
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 7 **#Containers:** 28

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 24, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAB0913 Plant Yates
Pace Project No.: 30211992

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 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.

This report replaces the March 22, 2017 report. Report reissued March 24, 2017 to reflect correction of Client Sample ID's.

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: AAB0913 Plant Yates
Pace Project No.: 30211992

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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(724)850-5600

SAMPLE SUMMARY

Project: AAB0913 Plant Yates
Pace Project No.: 30211992

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30211992001	**YGWA-47**	Water	02/24/17 12:00	02/28/17 09:40
30211992002	**YGWC-43**	Water	02/24/17 14:10	02/28/17 09:40
30211992003	**YGWC-45**	Water	02/27/17 10:45	02/28/17 09:40
30211992004	**YGWC-42**	Water	02/27/17 10:50	02/28/17 09:40
30211992005	**YGWC-46**	Water	02/27/17 12:20	02/28/17 09:40
30211992006	**EB-1-2-27-17**	Water	02/27/17 11:40	02/28/17 09:40
30211992007	**Dup-1**	Water	02/27/17 00:00	02/28/17 09:40

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: AAB0913 Plant Yates
Pace Project No.: 30211992

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30211992001	**YGWA-47**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992002	**YGWC-43**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992003	**YGWC-45**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992004	**YGWC-42**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992005	**YGWC-46**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992006	**EB-1-2-27-17**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992007	**Dup-1**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAB0913 Plant Yates
Pace Project No.: 30211992

Sample: YGWA-47 **Lab ID: 30211992001** Collected: 02/24/17 12:00 Received: 02/28/17 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	**0.263 ± 0.143 (0.188) C:94% T:NA**	pCi/L	03/20/17 08:36	13982-63-3	
Radium-228	EPA 9320	**0.241 ± 0.402 (0.875) C:62% T:94%**	pCi/L	03/18/17 15:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.504 ± 0.545 (1.06)**	pCi/L	03/22/17 12:01	7440-14-4	

Sample: YGWC-43 **Lab ID: 30211992002** Collected: 02/24/17 14:10 Received: 02/28/17 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	**0.237 ± 0.139 (0.205) C:96% T:NA**	pCi/L	03/20/17 08:36	13982-63-3	
Radium-228	EPA 9320	**0.424 ± 0.407 (0.835) C:75% T:84%**	pCi/L	03/18/17 15:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.661 ± 0.546 (1.04)**	pCi/L	03/22/17 12:01	7440-14-4	

Sample: YGWC-45 **Lab ID: 30211992003** Collected: 02/27/17 10:45 Received: 02/28/17 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	**0.505 ± 0.216 (0.289) C:96% T:NA**	pCi/L	03/20/17 08:37	13982-63-3	
Radium-228	EPA 9320	**0.0230 ± 0.356 (0.827) C:69% T:87%**	pCi/L	03/18/17 15:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.528 ± 0.572 (1.12)**	pCi/L	03/22/17 12:01	7440-14-4	

Sample: YGWC-42 **Lab ID: 30211992004** Collected: 02/27/17 10:50 Received: 02/28/17 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	**1.79 ± 0.428 (0.280) C:94% T:NA**	pCi/L	03/20/17 08:37	13982-63-3	
Radium-228	EPA 9320	**0.712 ± 0.356 (0.604) C:89% T:84%**	pCi/L	03/18/17 15:45	15262-20-1	
Total Radium	Total Radium Calculation	**2.50 ± 0.784 (0.884)**	pCi/L	03/22/17 12:01	7440-14-4	

Sample: YGWC-46 **Lab ID: 30211992005** Collected: 02/27/17 12:20 Received: 02/28/17 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	**0.297 ± 0.146 (0.163) C:96% T:NA**	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228	EPA 9320	**0.320 ± 0.403 (0.858) C:87% T:82%**	pCi/L	03/18/17 15:46	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: AAB0913 Plant Yates
Pace Project No.: 30211992

Sample: YGWC-46 **Lab ID: 30211992005** Collected: 02/27/17 12:20 Received: 02/28/17 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	**0.617 ± 0.549 (1.02)**	pCi/L	03/22/17 12:01	7440-14-4	

Sample: EB-1-2-27-17 **Lab ID: 30211992006** Collected: 02/27/17 11:40 Received: 02/28/17 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	**0.00886 ± 0.0781 (0.209) C:95% T:NA**	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228	EPA 9320	**0.596 ± 0.429 (0.828) C:69% T:85%**	pCi/L	03/18/17 15:46	15262-20-1	
Total Radium	Total Radium Calculation	**0.605 ± 0.507 (1.04)**	pCi/L	03/22/17 12:01	7440-14-4	

Sample: Dup-1 **Lab ID: 30211992007** Collected: 02/27/17 00:00 Received: 02/28/17 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	**0.392 ± 0.168 (0.177) C:97% T:NA**	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228	EPA 9320	**0.480 ± 0.475 (0.979) C:68% T:81%**	pCi/L	03/18/17 15:46	15262-20-1	
Total Radium	Total Radium Calculation	**0.872 ± 0.643 (1.16)**	pCi/L	03/22/17 12:01	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: AAB0913 Plant Yates
Pace Project No.: 30211992

QC Batch: 251731 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30211992001, 30211992002, 30211992003, 30211992004, 30211992005, 30211992006, 30211992007

METHOD BLANK: 1238369 Matrix: Water
Associated Lab Samples: 30211992001, 30211992002, 30211992003, 30211992004, 30211992005, 30211992006, 30211992007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.00178 ± 0.0626 (0.181) C:99% T:NA	pCi/L	03/20/17 08:36	

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: AAB0913 Plant Yates
Pace Project No.: 30211992

QC Batch: 251828 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30211992001, 30211992002, 30211992003, 30211992004, 30211992005, 30211992006, 30211992007

METHOD BLANK: 1238974 Matrix: Water
Associated Lab Samples: 30211992001, 30211992002, 30211992003, 30211992004, 30211992005, 30211992006, 30211992007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0635 ± 0.343 (0.815) C:78% T:91%	pCi/L	03/18/17 15:44	

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: AAB0913 Plant Yates
Pace Project No.: 30211992

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.

30211992

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAB0913 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 3/22/2017

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#:30211992

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	YGWA-47	G	2/24/2017 12:00	AAB0913-01	GW	2	X	001
2	YGWC-43	G	2/24/2017 14:10	AAB0913-02	GW	2	X	002
3	YGWC-45	G	2/27/2017 10:45	AAB0913-03	GW	2	X	003
4	YGWC-42	G	2/27/2017 10:50	AAB0913-04	GW	2	X	004
5	YGWC-46	G	2/27/2017 12:20	AAB0913-05	GW	2	X	005
6	EB-1-2-27-17	G	2/27/2017 11:40	AAB0913-06	W	2	X	006
7	Dup-1	G	2/27/2017 0:00	AAB0913-07	GW	2	X	007
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Ashley Boal/Pace	2-28-17/0940	
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.

N/A

Sample Condition Upon Receipt Pittsburgh

30211992

Pace Analytical

Client Name: Pace, GA Project #

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

Tracking #: 6812 5102 6382

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: AMM 2-28-17

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:	X			5.
-Includes date/time/ID Matrix: WT				
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.	X			15.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: AMM 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: AMM Date: 2-28-17

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.

30211992

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 AP
PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE M-DD-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	P	
					PRESERVATION:	3	7	3		
2-24-17	1200	GW		✓	YGWA-47	4	1	1	2	1
2-24-17	1410	GW		✓	YGWC-43	4	1	1	2	2
2-27-17	1045	GW		✓	YGWC-45	4	1	1	2	3
2-27-17	1050	GW		✓	YGWC-42	4	1	1	2	4
2-27-17	1220	GW		✓	YGWC-46	4	1	1	2	5
2-27-17	1140	W		✓	EB-1-2-27-17	4	1	1	2	6
2-27-17	—	GW		✓	DUP-1	4	1	1	2	7

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: C. Parker, R. Walker (ACC)
DATE/TIME: 2-27-17 / 1330
RELINQUISHED BY:
DATE/TIME: 2-27-17 1515
RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:
RECEIVED BY LAB:
DATE/TIME: 02/27/17 1515
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 #: AA80913
Entered into LIMS: MK
Tracking #:

Plant Yates COC Ash Ponds

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JJY
Date:	3/13/2017
Worklist:	34513
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1238974
MB concentration:	-0.064
M/B Counting Uncertainty:	0.343
MB MDC:	0.815
MB Numerical Performance Indicator:	-0.36
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS34513	LCSD34513
Count Date:	3/18/2017	3/18/2017
Spike I.D.:	17-005	17-005
Spike Concentration (pCi/mL):	25.008	25.008
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.807	0.806
Target Conc. (pCi/L, g, F):	6.198	6.204
Uncertainty (Calculated):	0.446	0.447
Result (pCi/L, g, F):	4.807	3.854
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.605	0.565
Numerical Performance Indicator:	-3.63	-6.39
Percent Recovery:	77.55%	62.13%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Duplicate Sample Assessment		
Sample I.D.:	LCS34513	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD34513	
Sample Result (pCi/L, g, F):	4.807	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.605	
Sample Duplicate Result (pCi/L, g, F):	3.854	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.565	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	2.255	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	22.08%	
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:

3/22/17

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	3/16/2017
Worklist:	34495
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1238369
MB concentration:	-0.002
M/B Counting Uncertainty:	0.063
MB MDC:	0.181
MB Numerical Performance Indicator:	-0.06
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS34495	LCSD34495
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):	0.501	
Target Conc. (pCi/L, g, F):	19.086	
Uncertainty (Calculated):	0.898	
Result (pCi/L, g, F):	16.203	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.961	
Numerical Performance Indicator:	-4.30	
Percent Recovery:	84.90%	
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.:	30211899003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30211899003DUP	
Sample Result (pCi/L, g, F):	0.098	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.119	
Sample Duplicate Result (pCi/L, g, F):	0.123	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.106	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.309	30211899003
Duplicate RPD:	22.69%	30211899003DUP
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:

3/22/17

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: AAC0053
March 08, 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 08, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWC-49	AAC0053-01	Ground Water	02/27/17 13:10	03/01/17 16:50
FB-1-2-28-17	AAC0053-02	Water	02/28/17 10:00	03/01/17 16:50
YGWC-44	AAC0053-03	Ground Water	02/28/17 10:30	03/01/17 16:50
YGWC-36	AAC0053-04	Ground Water	02/28/17 14:00	03/01/17 16:50

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 08, 2017

Report No.: AAC0053
Client ID: YGWC-49
Date/Time Sampled: 2/27/2017 1:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0053-01
Date/Time Received: 3/1/2017 4:50:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	382	25	10	mg/L	SM 2540 C		1	03/03/17 10:25	03/03/17 10:25	7030106	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 14:25	7030132	RLC
Fluoride	0.06	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 14:25	7030132	RLC
Sulfate	84	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/07/17 01:02	7030132	RLC
Metals, Total											
Antimony	0.0011	0.0030	0.0003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Barium	0.0888	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Beryllium	0.0001	0.0030	0.00007	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Cadmium	0.00007	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Calcium	12.5	2.50	0.0522	mg/L	EPA 6020B		5	03/02/17 12:35	03/06/17 21:27	7030080	CSW
Chromium	0.0016	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Molybdenum	0.0007	0.0100	0.0002	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Selenium	0.0098	0.0100	0.0014	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Thallium	0.00009	0.0010	0.00003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Lithium	0.0036	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/02/17 11:10	03/02/17 14:40	7030045	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 08, 2017

Report No.: AAC0053
Client ID: FB-1-2-28-17
Date/Time Sampled: 2/28/2017 10:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0053-02
Date/Time Received: 3/1/2017 4:50:00PM

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	03/03/17 15:10	03/03/17 15:10	7030156	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 14:46	7030132	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 14:46	7030132	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 14:46	7030132	RLC
Metals, Total											
Antimony	0.0004	0.0030	0.0003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Calcium	0.0200	0.500	0.0104	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/02/17 11:10	03/02/17 14:47	7030045	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 08, 2017

Report No.: AAC0053
Client ID: YGWC-44
Date/Time Sampled: 2/28/2017 10:30:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0053-03
Date/Time Received: 3/1/2017 4:50:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	483	25	10	mg/L	SM 2540 C		1	03/03/17 10:25	03/03/17 10:25	7030106	JPT
Inorganic Anions											
Chloride	12	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 15:07	7030132	RLC
Fluoride	0.07	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 15:07	7030132	RLC
Sulfate	130	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/07/17 01:23	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Arsenic	0.0005	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Barium	0.121	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Boron	0.623	0.0400	0.0060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Calcium	26.4	5.00	0.104	mg/L	EPA 6020B		10	03/02/17 12:35	03/06/17 21:04	7030080	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Cobalt	0.0017	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Molybdenum	0.0005	0.0100	0.0002	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Lithium	0.0124	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/02/17 11:10	03/02/17 14:49	7030045	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAC0053
Client ID: YGWC-36
Date/Time Sampled: 2/28/2017 2:00:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAC0053-04
Date/Time Received: 3/1/2017 4:50:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	306	25	10	mg/L	SM 2540 C		1	03/03/17 15:10	03/03/17 15:10	7030156	JPT
Inorganic Anions											
Chloride	5.4	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 15:29	7030132	RLC
Fluoride	0.09	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 15:29	7030132	RLC
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/07/17 01:44	7030132	RLC
Metals, Total											
Antimony	0.0004	0.0030	0.0003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Barium	0.0230	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Beryllium	0.0001	0.0030	0.00007	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Boron	0.215	0.0400	0.0060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Cadmium	0.0001	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Calcium	8.37	0.500	0.0104	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Lead	0.0003	0.0050	0.00005	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Molybdenum	0.0038	0.0100	0.0002	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Selenium	0.0017	0.0100	0.0014	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Lithium	0.0038	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/02/17 11:10	03/02/17 14:52	7030045	MTC

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Report No.: AAC0053

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030106 - SM 2540 C											
Blank (7030106-BLK1)						Prepared & Analyzed: 03/03/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030106-BS1)						Prepared & Analyzed: 03/03/17					
Total Dissolved Solids	356	25	10	mg/L	400.00		89	84-108			
Duplicate (7030106-DUP1)		**Source: AAC0053-04**				Prepared & Analyzed: 03/03/17					
Total Dissolved Solids	526	25	10	mg/L		441			18	10	QR-03
Batch 7030156 - SM 2540 C											
Blank (7030156-BLK1)						Prepared & Analyzed: 03/06/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030156-BS1)						Prepared & Analyzed: 03/06/17					
Total Dissolved Solids	426	25	10	mg/L	400.00		106	84-108			
Duplicate (7030156-DUP1)		**Source: AAC0053-02RE1**				Prepared & Analyzed: 03/06/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7030156-DUP2)		**Source: AAC0053-04RE1**				Prepared & Analyzed: 03/06/17					
Total Dissolved Solids	286	25	10	mg/L		306			7	10	

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Report No.: AAC0053

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030132 - EPA 300.0											
Blank (7030132-BLK1)						Prepared: 03/05/17 Analyzed: 03/06/17					
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 (7030132-BS1)						Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	9.75	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	9.95	1.0	0.09	mg/L	10.020		99	90-110			
Matrix Spike (7030132-MS1)		**Source: AAB0913-01**				Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	15.1	0.25	0.01	mg/L	10.010	5.47	96	90-110			
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.05	105	90-110			
Sulfate	105	1.0	0.09	mg/L	10.020	107	NR	90-110			QM-02
Matrix Spike (7030132-MS2)		**Source: AAB0913-04**				Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	14.3	0.25	0.01	mg/L	10.010	4.69	96	90-110			
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.06	106	90-110			
Sulfate	399	1.0	0.09	mg/L	10.020	422	NR	90-110			QM-02
Matrix Spike Dup (7030132-MSD1)		**Source: AAB0913-01**				Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	15.1	0.25	0.01	mg/L	10.010	5.47	96	90-110	0.07	15	
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.05	105	90-110	0.1	15	
Sulfate	105	1.0	0.09	mg/L	10.020	107	NR	90-110	0.04	15	QM-02

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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 7030045 - EPA 7470A											
Blank (7030045-BLK1)						Prepared & Analyzed: 03/02/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030045-BS1)						Prepared & Analyzed: 03/02/17					
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3		94	80-120			
Matrix Spike (7030045-MS1)		**Source: AAC0053-01**				Prepared & Analyzed: 03/02/17					
Mercury	0.00232	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125			
Matrix Spike Dup (7030045-MSD1)		**Source: AAC0053-01**				Prepared & Analyzed: 03/02/17					
Mercury	0.00233	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	0.4	20	
Post Spike (7030045-PS1)		**Source: AAC0053-01**				Prepared & Analyzed: 03/02/17					
Mercury	1.66			ug/L	1.6667	-0.00660	99	80-120			
Batch 7030080 - EPA 3005A											
Blank (7030080-BLK1)						Prepared: 03/02/17 Analyzed: 03/06/17					
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	0.000060	mg/L							
Calcium	ND	0.500	0.0104	mg/L							
Chromium	ND	0.0100	0.0003	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0002	mg/L							
Lead	ND	0.0050	0.00005	mg/L							
Molybdenum	ND	0.0100	0.0002	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	0.00003	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							

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Report No.: AAC0053

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030080 - EPA 3005A											
LCS (7030080-BS1)						Prepared: 03/02/17 Analyzed: 03/06/17					
Antimony	0.104	0.0030	0.0003	mg/L	0.10000		104	80-120			
Arsenic	0.0954	0.0050	0.0004	mg/L	0.10000		95	80-120			
Barium	0.0993	0.0100	0.0003	mg/L	0.10000		99	80-120			
Beryllium	0.0908	0.0030	0.00007	mg/L	0.10000		91	80-120			
Boron	0.954	0.0400	0.0060	mg/L	1.0000		95	80-120			
Cadmium	0.0958	0.0010	0.000060	mg/L	0.10000		96	80-120			
Calcium	0.988	0.500	0.0104	mg/L	1.0000		99	80-120			
Chromium	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Copper	0.100	0.0250	0.0002	mg/L	0.10000		100	80-120			
Lead	0.102	0.0050	0.00005	mg/L	0.10000		102	80-120			
Molybdenum	0.109	0.0100	0.0002	mg/L	0.10000		109	80-120			
Nickel	0.0989	0.0100	0.0003	mg/L	0.10000		99	80-120			
Selenium	0.0952	0.0100	0.0014	mg/L	0.10000		95	80-120			
Silver	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Thallium	0.102	0.0010	0.00003	mg/L	0.10000		102	80-120			
Vanadium	0.102	0.0100	0.0014	mg/L	0.10000		102	80-120			
Zinc	0.101	0.0100	0.0013	mg/L	0.10000		101	80-120			
Lithium	0.0913	0.0500	0.0011	mg/L	0.10000		91	80-120			
Matrix Spike (7030080-MS1)			**Source: AAC0053-02**			Prepared: 03/02/17 Analyzed: 03/06/17					
Antimony	0.105	0.0030	0.0003	mg/L	0.10000	0.0004	104	75-125			
Arsenic	0.0966	0.0050	0.0004	mg/L	0.10000	ND	97	75-125			
Barium	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125			
Beryllium	0.0966	0.0030	0.00007	mg/L	0.10000	ND	97	75-125			
Boron	0.991	0.0400	0.0060	mg/L	1.0000	ND	99	75-125			
Cadmium	0.0980	0.0010	0.000060	mg/L	0.10000	ND	98	75-125			
Calcium	1.06	0.500	0.0104	mg/L	1.0000	0.0200	104	75-125			
Chromium	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125			
Cobalt	0.0996	0.0100	0.0005	mg/L	0.10000	ND	100	75-125			
Copper	0.0995	0.0250	0.0002	mg/L	0.10000	ND	99	75-125			
Lead	0.104	0.0050	0.00005	mg/L	0.10000	ND	104	75-125			
Molybdenum	0.105	0.0100	0.0002	mg/L	0.10000	ND	105	75-125			
Nickel	0.0998	0.0100	0.0003	mg/L	0.10000	ND	100	75-125			
Selenium	0.0969	0.0100	0.0014	mg/L	0.10000	ND	97	75-125			
Silver	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125			
Thallium	0.105	0.0010	0.00003	mg/L	0.10000	ND	105	75-125			
Vanadium	0.100	0.0100	0.0014	mg/L	0.10000	ND	100	75-125			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000	ND	105	75-125			
Lithium	0.0957	0.0500	0.0011	mg/L	0.10000	ND	96	75-125			

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March 08, 2017

Report No.: AAC0053

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030080 - EPA 3005A											
Matrix Spike Dup (7030080-MSD1)		**Source: AAC0053-02**			Prepared: 03/02/17 Analyzed: 03/06/17						
Antimony	0.106	0.0030	0.0003	mg/L	0.10000	0.0004	106	75-125	2	20	
Arsenic	0.0938	0.0050	0.0004	mg/L	0.10000	ND	94	75-125	3	20	
Barium	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125	1	20	
Beryllium	0.0988	0.0030	0.00007	mg/L	0.10000	ND	99	75-125	2	20	
Boron	1.01	0.0400	0.0060	mg/L	1.0000	ND	101	75-125	1	20	
Cadmium	0.0996	0.0010	0.000060	mg/L	0.10000	ND	100	75-125	2	20	
Calcium	1.05	0.500	0.0104	mg/L	1.0000	0.0200	103	75-125	0.3	20	
Chromium	0.101	0.0100	0.0003	mg/L	0.10000	ND	101	75-125	2	20	
Cobalt	0.0973	0.0100	0.0005	mg/L	0.10000	ND	97	75-125	2	20	
Copper	0.0995	0.0250	0.0002	mg/L	0.10000	ND	99	75-125	0.006	20	
Lead	0.103	0.0050	0.00005	mg/L	0.10000	ND	103	75-125	0.8	20	
Molybdenum	0.108	0.0100	0.0002	mg/L	0.10000	ND	108	75-125	3	20	
Nickel	0.101	0.0100	0.0003	mg/L	0.10000	ND	101	75-125	0.7	20	
Selenium	0.0982	0.0100	0.0014	mg/L	0.10000	ND	98	75-125	1	20	
Silver	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	0.06	20	
Thallium	0.105	0.0010	0.00003	mg/L	0.10000	ND	105	75-125	0.1	20	
Vanadium	0.103	0.0100	0.0014	mg/L	0.10000	ND	103	75-125	3	20	
Zinc	0.102	0.0100	0.0013	mg/L	0.10000	ND	102	75-125	3	20	
Lithium	0.102	0.0500	0.0011	mg/L	0.10000	ND	102	75-125	6	20	
Post Spike (7030080-PS1)		**Source: AAC0053-02**			Prepared: 03/02/17 Analyzed: 03/06/17						
Antimony	99.0			ug/L	100.00	0.350	99	80-120			
Arsenic	96.2			ug/L	100.00	0.0026	96	80-120			
Barium	101			ug/L	100.00	0.0641	101	80-120			
Beryllium	97.7			ug/L	100.00	0.0039	98	80-120			
Boron	971			ug/L	1000.0	0.0913	97	80-120			
Cadmium	100			ug/L	100.00	0.0138	100	80-120			
Calcium	1060			ug/L	1000.0	20.0	104	80-120			
Chromium	104			ug/L	100.00	0.158	104	80-120			
Cobalt	99.4			ug/L	100.00	0.0071	99	80-120			
Copper	102			ug/L	100.00	0.146	102	80-120			
Lead	102			ug/L	100.00	0.0150	102	80-120			
Molybdenum	109			ug/L	100.00	0.0580	109	80-120			
Nickel	101			ug/L	100.00	0.0629	100	80-120			
Selenium	100			ug/L	100.00	0.589	100	80-120			
Silver	105			ug/L	100.00	0.0028	105	80-120			
Thallium	103			ug/L	100.00	0.0170	103	80-120			
Vanadium	105			ug/L	100.00	-0.323	105	80-120			
Zinc	106			ug/L	100.00	0.540	106	80-120			
Lithium	101			ug/L	100.00	0.0163	101	80-120			

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March 08, 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-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 AP
PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE m-dd-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	
2-27-17	1310	GW		✓	YGWC-49	4	1	1	2	1
2-28-17	1000	W		✓	FB-1-2-28-17	4	1	1	2	2
2-28-17	1030	GW		✓	YGWC-44	4	1	1	2	3
2-28-17	1400	GW		✓	YGWC-36	4	1	1	2	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: C. Parker, R. Walker ACC
DATE/TIME: 3-1-17 0845
RELINQUISHED BY: [signature]
DATE/TIME: 3-1-17 1650

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

RECEIVED BY LAB: [signature]
DATE/TIME: 3/1/17 1650
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH Checked: Yes No NA
Ice: Yes No NA
Temperature: 1.4°C Min: 1.4°C Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AAC0053
Entered into LIMS: 1/4
Tracking #:

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: 3/2/2017 10:01:29AM

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 03/01/17 16:50

Work Order: AAC0053
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 4 **#Containers:** 16

Minimum Temp(C): 1.4 **Maximum Temp(C):** 1.4 **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 24, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAC0053 Plant Yates
Pace Project No.: 30212422

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on March 03, 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: AAC0053 Plant Yates
Pace Project No.: 30212422

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: AAC0053 Plant Yates
Pace Project No.: 30212422

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30212422001	**YGWC-49**	Water	02/27/17 13:10	03/03/17 09:45
30212422002	**FB-1-2-28-17**	Water	02/28/17 10:00	03/03/17 09:45
30212422003	**YGWC-44**	Water	02/28/17 10:30	03/03/17 09:45
30212422004	**YGWC-36**	Water	02/28/17 14:00	03/03/17 09:45

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: AAC0053 Plant Yates
Pace Project No.: 30212422

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30212422001	**YGWC-49**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	JAL	1
30212422002	**FB-1-2-28-17**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	JAL	1
30212422003	**YGWC-44**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	JAL	1
30212422004	**YGWC-36**	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	JAL	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0053 Plant Yates
Pace Project No.: 30212422

Sample: YGWC-49 **Lab ID: 30212422001** Collected: 02/27/17 13:10 Received: 03/03/17 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	**0.174 ± 0.114 (0.158) C:94% T:NA**	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228	EPA 9320	**0.0703 ± 0.319 (0.730) C:81% T:79%**	pCi/L	03/18/17 15:46	15262-20-1	
Total Radium	Total Radium Calculation	**0.244 ± 0.433 (0.888)**	pCi/L	03/23/17 11:14	7440-14-4	

Sample: FB-1-2-28-17 **Lab ID: 30212422002** Collected: 02/28/17 10:00 Received: 03/03/17 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	**0.0124 ± 0.0654 (0.175) C:99% T:NA**	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228	EPA 9320	**-0.0875 ± 0.354 (0.848) C:74% T:83%**	pCi/L	03/18/17 15:47	15262-20-1	
Total Radium	Total Radium Calculation	**0.0124 ± 0.419 (1.02)**	pCi/L	03/23/17 11:14	7440-14-4	

Sample: YGWC-44 **Lab ID: 30212422003** Collected: 02/28/17 10:30 Received: 03/03/17 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	**0.0926 ± 0.104 (0.207) C:94% T:NA**	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228	EPA 9320	**0.148 ± 0.367 (0.820) C:70% T:81%**	pCi/L	03/18/17 15:47	15262-20-1	
Total Radium	Total Radium Calculation	**0.241 ± 0.471 (1.03)**	pCi/L	03/23/17 11:14	7440-14-4	

Sample: YGWC-36 **Lab ID: 30212422004** Collected: 02/28/17 14:00 Received: 03/03/17 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	**0.130 ± 0.127 (0.245) C:85% T:NA**	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228	EPA 9320	**1.21 ± 0.776 (1.45) C:41% T:78%**	pCi/L	03/18/17 15:47	15262-20-1	
Total Radium	Total Radium Calculation	**1.34 ± 0.903 (1.70)**	pCi/L	03/23/17 11:14	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: AAC0053 Plant Yates
Pace Project No.: 30212422

QC Batch: 251731 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30212422001, 30212422002, 30212422003, 30212422004

METHOD BLANK: 1238369 Matrix: Water
Associated Lab Samples: 30212422001, 30212422002, 30212422003, 30212422004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.00178 ± 0.0626 (0.181) C:99% T:NA	pCi/L	03/20/17 08:36	

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: AAC0053 Plant Yates
Pace Project No.: 30212422

QC Batch: 251828 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30212422001, 30212422002, 30212422003, 30212422004

METHOD BLANK: 1238974 Matrix: Water
Associated Lab Samples: 30212422001, 30212422002, 30212422003, 30212422004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0635 ± 0.343 (0.815) C:78% T:91%	pCi/L	03/18/17 15:44	

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: AAC0053 Plant Yates
Pace Project No.: 30212422

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#:30212422

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAC0053 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 3/24/2017

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	YGWC-49	G	2/27/2017 13:10	AAC0053-01	GW	2	X	001
2	FB-1-2-28-17	G	2/28/2017 10:00	AAC0053-02	GW	2	X	002
3	YGWC-44	G	2/28/2017 10:30	AAC0053-03	GW	2	X	003
4	YGWC-36	G	2/28/2017 14:00	AAC0053-04	GW	2	X	004
5								
6								
7								
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	[signature]	3/2/17 1730	[signature]	3-3-17 0945	
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.

30212422

CHAIN OF CUSTODY RECORD

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

CLIENT NAME: Georgia Power

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

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

PROJECT NAME/STATE: Plant Yates AP
PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE m-DD-YY	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) P 3	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C) P 7	Radium 226 & 228 (SW-846 9315/9320) P 3	P	P	P	P	P	P	LAB ID NUMBER
2-27-17	1310	GW		✓	YGWC-49	4	1	1	2							1
2-28-17	1000	W		✓	FB-1-2-28-17	4	1	1	2							2
2-28-17	1030	GW		✓	YGWC-44	4	1	1	2							3
2-28-17	1400	GW		✓	YGWC-36	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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: C. Parker, R. Walker ACC
DATE/TIME: 3-1-17 0845
RELINQUISHED BY:
DATE/TIME: 3-1-17 1650

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

RECEIVED BY LAB:
DATE/TIME: 3/1/17 1650

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

pH Checked: Yes No NA
VOA: Yes No NA
Temperature: 1.4 °C Min. 1.4 °C Max.
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AAC0053
Entered into LIMS: 1/4
Tracking #:

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace Ga. Project # 30212422

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

Tracking #: 6812 5102 7312

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 3-3-17

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	X		4. jaw 3/6/17
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 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 X			15.
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: ML 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: ML Date: 3-3-17

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:	3/16/2017
Worklist:	34495
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1238369
MB concentration:	-0.002
M/B Counting Uncertainty:	0.063
MB MDC:	0.181
MB Numerical Performance Indicator:	-0.06
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS34495	LCSD34495
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):	0.501	
Target Conc. (pCi/L, g, F):	19.086	
Uncertainty (Calculated):	0.898	
Result (pCi/L, g, F):	16.203	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.961	
Numerical Performance Indicator:	-4.30	
Percent Recovery:	84.90%	
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.:	30211899003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30211899003DUP	
Sample Result (pCi/L, g, F):	0.098	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.119	
Sample Duplicate Result (pCi/L, g, F):	0.123	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.106	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.309	30211899003
Duplicate RPD:	22.69%	30211899003DUP
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:

Apr 3/24/17

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JJY
Date:	3/13/2017
Worklist:	34513
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1238974
MB concentration:	-0.064
M/B Counting Uncertainty:	0.343
MB MDC:	0.815
MB Numerical Performance Indicator:	-0.36
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS34513	LCSD34513
Count Date:	3/18/2017	3/18/2017
Spike I.D.:	17-005	17-005
Spike Concentration (pCi/mL):	25.008	25.008
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.807	0.806
Target Conc. (pCi/L, g, F):	6.198	6.204
Uncertainty (Calculated):	0.446	0.447
Result (pCi/L, g, F):	4.807	3.854
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.605	0.565
Numerical Performance Indicator:	-3.63	-6.39
Percent Recovery:	77.55%	62.13%
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.:	LCS34513	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD34513	
Sample Result (pCi/L, g, F):	4.807	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.605	
Sample Duplicate Result (pCi/L, g, F):	3.854	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.565	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	2.255	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	22.08%	
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:

3 Jul 17

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: AAE0387
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.

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Attention: Mr. Joju Abraham

May 22, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AAE0387-01	Ground Water	05/08/17 12:00	05/11/17 09:50
YGWC-44	AAE0387-02	Ground Water	05/08/17 13:35	05/11/17 09:50
YGWC-46	AAE0387-03	Ground Water	05/08/17 15:05	05/11/17 09:50
YGWC-36	AAE0387-04	Ground Water	05/09/17 11:55	05/11/17 09:50
YGWC-49	AAE0387-05	Ground Water	05/09/17 13:20	05/11/17 09:50
YGWC-45	AAE0387-06	Ground Water	05/09/17 15:25	05/11/17 09:50
Dup-1	AAE0387-07	Ground Water	05/09/17 00:00	05/11/17 09:50
YGWC-42	AAE0387-08	Ground Water	05/10/17 12:05	05/11/17 09:50
YGWC-43	AAE0387-09	Ground Water	05/10/17 10:15	05/11/17 09:50
EB-1-5-10-17	AAE0387-10	Water	05/10/17 11:50	05/11/17 09:50
FB-1-5-9-17	AAE0387-11	Water	05/09/17 10:25	05/11/17 09:50

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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.

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.: AAE0387
Client ID: YGWA-47
Date/Time Sampled: 5/8/2017 12:00:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0387-01
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	194	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 11:53	7050437	SLH
Fluoride	0.03	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 11:53	7050437	SLH
Sulfate	120	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 16:46	7050437	SLH
Metals, Total											
Antimony	0.0004	0.0030	0.0003	mg/L	EPA 6020B	B-01, J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Barium	0.0251	0.0100	0.0003	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Beryllium	0.00007	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Boron	0.0141	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Calcium	14.6	5.00	0.522	mg/L	EPA 6020B		50	05/15/17 09:00	05/17/17 17:30	7050474	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Cobalt	0.0099	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Lithium	0.0053	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:20	7050418	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387
Client ID: YGWC-44
Date/Time Sampled: 5/8/2017 1:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0387-02
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	296	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	13	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 12:55	7050437	SLH
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 12:55	7050437	SLH
Sulfate	150	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 17:07	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Barium	0.125	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Boron	0.690	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Calcium	29.9	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 22:04	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Cobalt	0.0018	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Lithium	0.0132	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:22	7050418	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.: AAE0387
Client ID: YGWC-46
Date/Time Sampled: 5/8/2017 3:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0387-03
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	1160	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	33	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 13:15	7050437	SLH
Fluoride	0.004	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 13:15	7050437	SLH
Sulfate	770	50	4.6	mg/L	EPA 300.0		50	05/12/17 09:41	05/18/17 17:28	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Barium	0.0332	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Boron	1.71	1.00	0.302	mg/L	EPA 6020B		50	05/12/17 12:00	05/15/17 22:27	7050449	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Calcium	103	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 22:27	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Cobalt	0.0367	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Molybdenum	0.0008	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Lithium	0.0087	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:24	7050418	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387
Client ID: YGWC-36
Date/Time Sampled: 5/9/2017 11:55:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0387-04
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	303	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	5.7	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 13:36	7050437	SLH
Fluoride	0.009	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 13:36	7050437	SLH
Sulfate	130	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 17:48	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Barium	0.0349	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Beryllium	0.0002	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Boron	0.233	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Calcium	13.9	5.00	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 22:39	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Lead	0.0004	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Molybdenum	0.0025	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Selenium	0.0018	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Lithium	0.0057	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:27	7050418	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387
Client ID: YGWC-49
Date/Time Sampled: 5/9/2017 1:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0387-05
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	154	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	5.3	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 13:57	7050437	SLH
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 13:57	7050437	SLH
Sulfate	91	5.0	0.46	mg/L	EPA 300.0		5	05/12/17 09:41	05/18/17 18:09	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Barium	0.0792	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Beryllium	0.0001	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Calcium	14.4	5.00	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 22:50	7050449	CSW
Chromium	0.0017	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Selenium	0.0076	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Lithium	0.0038	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:29	7050418	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387
Client ID: YGWC-45
Date/Time Sampled: 5/9/2017 3:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0387-06
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	388	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 14:17	7050437	SLH
Fluoride	0.20	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 14:17	7050437	SLH
Sulfate	190	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 18:30	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Barium	0.0779	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Boron	0.338	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Calcium	56.0	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 23:01	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Molybdenum	0.0015	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Lithium	0.0136	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:31	7050418	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.: AAE0387
Client ID: Dup-1
Date/Time Sampled: 5/9/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0387-07
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	249	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	5.7	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 14:59	7050437	SLH
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 14:59	7050437	SLH
Sulfate	130	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 18:50	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Barium	0.0352	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Beryllium	0.0002	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Boron	0.239	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Calcium	14.1	5.00	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 23:13	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Lead	0.0003	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Molybdenum	0.0026	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Selenium	0.0016	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Lithium	0.0053	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:39	7050418	MTC

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387
Client ID: YGWC-42
Date/Time Sampled: 5/10/2017 12:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0387-08
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	1630	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	4.4	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 16:42	7050437	SLH
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 16:42	7050437	SLH
Sulfate	1200	50	4.6	mg/L	EPA 300.0		50	05/12/17 09:41	05/18/17 19:11	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Arsenic	0.0022	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Barium	0.0517	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Beryllium	0.00009	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Boron	20.4	2.00	0.302	mg/L	EPA 6020B		50	05/12/17 12:00	05/15/17 23:36	7050449	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Calcium	130	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 23:36	7050449	CSW
Chromium	0.0006	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Cobalt	0.0021	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Lead	0.00009	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Molybdenum	0.0017	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Selenium	0.0530	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Lithium	0.0316	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:41	7050418	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387
Client ID: YGWC-43
Date/Time Sampled: 5/10/2017 10:15:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAE0387-09
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	203	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	1.2	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:03	7050437	SLH
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 17:03	7050437	SLH
Sulfate	100	5.0	0.46	mg/L	EPA 300.0		5	05/12/17 09:41	05/18/17 19:32	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Barium	0.0173	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Boron	0.955	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Calcium	7.90	0.500	0.0104	mg/L	EPA 6020B	B-01	1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Lead	0.00008	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Lithium	0.0123	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:43	7050418	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.: AAE0387
Client ID: EB-1-5-10-17
Date/Time Sampled: 5/10/2017 11:50:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0387-10
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	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:23	7050437	SLH
Fluoride	0.009	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 17:23	7050437	SLH
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:23	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Boron	0.0071	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Calcium	0.0638	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:46	7050418	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387
Client ID: FB-1-5-9-17
Date/Time Sampled: 5/9/2017 10:25:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAE0387-11
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	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:44	7050437	SLH
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:44	7050437	SLH
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:44	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Calcium	0.0497	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:48	7050418	MTC

PACE ANALYTICAL SERVICES, LLC.

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Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

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	

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May 22, 2017

Report No.: AAE0387

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050437 - EPA 300.0											
Blank (7050437-BLK1)						Prepared & Analyzed: 05/12/17					
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 (7050437-BS1)						Prepared & Analyzed: 05/12/17					
Chloride	10.0	0.25	0.01	mg/L	10.020		100	90-110			
Fluoride	10.0	0.30	0.004	mg/L	10.020		100	90-110			
Sulfate	10.2	1.0	0.09	mg/L	10.050		101	90-110			
Matrix Spike (7050437-MS1)		**Source: AAE0387-01**				Prepared & Analyzed: 05/12/17					
Chloride	15.8	0.25	0.01	mg/L	10.020	5.79	100	90-110			
Fluoride	10.4	0.30	0.004	mg/L	10.020	0.03	104	90-110			
Sulfate	109	1.0	0.09	mg/L	10.050	110	NR	90-110			QM-02
Matrix Spike (7050437-MS2)		**Source: AAE0387-06**				Prepared & Analyzed: 05/12/17					
Chloride	14.9	0.25	0.01	mg/L	10.020	4.60	103	90-110			
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.20	105	90-110			
Sulfate	152	1.0	0.09	mg/L	10.050	157	NR	90-110			QM-02
Matrix Spike Dup (7050437-MSD1)		**Source: AAE0387-01**				Prepared & Analyzed: 05/12/17					
Chloride	16.0	0.25	0.01	mg/L	10.020	5.79	101	90-110	1	15	
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.03	106	90-110	2	15	
Sulfate	108	1.0	0.09	mg/L	10.050	110	NR	90-110	0.2	15	QM-02

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.: AAE0387

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 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							

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

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					
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			
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			

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

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						
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	
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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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050474 - EPA 3005A											
Blank (7050474-BLK1)						Prepared: 05/15/17 Analyzed: 05/17/17					
Antimony	0.0003	0.0030	0.0003	mg/L							J
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	ND	0.500	0.0104	mg/L							
Chromium	ND	0.0100	0.0003	mg/L							
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 (7050474-BS1)						Prepared: 05/15/17 Analyzed: 05/17/17					
Antimony	0.106	0.0030	0.0003	mg/L	0.10000		106	80-120			
Arsenic	0.102	0.0050	0.0004	mg/L	0.10000		102	80-120			
Barium	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Beryllium	0.0986	0.0030	0.00007	mg/L	0.10000		99	80-120			
Boron	0.990	0.0400	0.0060	mg/L	1.0000		99	80-120			
Cadmium	0.0997	0.0010	0.00006	mg/L	0.10000		100	80-120			
Calcium	0.982	0.500	0.0104	mg/L	1.0000		98	80-120			
Chromium	0.100	0.0100	0.0003	mg/L	0.10000		100	80-120			
Cobalt	0.0954	0.0100	0.0005	mg/L	0.10000		95	80-120			
Copper	0.103	0.0250	0.0003	mg/L	0.10000		103	80-120			
Lead	0.0978	0.0050	0.00007	mg/L	0.10000		98	80-120			
Molybdenum	0.103	0.0100	0.0006	mg/L	0.10000		103	80-120			
Nickel	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Selenium	0.105	0.0100	0.0014	mg/L	0.10000		105	80-120			
Silver	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Thallium	0.0971	0.0010	0.00005	mg/L	0.10000		97	80-120			
Vanadium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Zinc	0.0929	0.0100	0.0013	mg/L	0.10000		93	80-120			
Lithium	0.0983	0.0500	0.0011	mg/L	0.10000		98	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050474 - EPA 3005A											
Matrix Spike (7050474-MS1)		**Source: AAE0387-01**				Prepared: 05/15/17 Analyzed: 05/17/17					
Antimony	0.108	0.0030	0.0003	mg/L	0.10000	0.0004	107	75-125			
Arsenic	0.0986	0.0050	0.0004	mg/L	0.10000	ND	99	75-125			
Barium	0.128	0.0100	0.0003	mg/L	0.10000	0.0251	103	75-125			
Beryllium	0.105	0.0030	0.00007	mg/L	0.10000	0.00007	105	75-125			
Boron	1.08	0.0400	0.0060	mg/L	1.0000	0.0141	107	75-125			
Cadmium	0.103	0.0010	0.00006	mg/L	0.10000	0.0001	103	75-125			
Calcium	15.6	25.0	0.522	mg/L	1.0000	14.6	110	75-125			J
Chromium	0.0991	0.0100	0.0003	mg/L	0.10000	ND	99	75-125			
Cobalt	0.106	0.0100	0.0005	mg/L	0.10000	0.0099	96	75-125			
Copper	0.106	0.0250	0.0003	mg/L	0.10000	0.0004	105	75-125			
Lead	0.0966	0.0050	0.00007	mg/L	0.10000	ND	97	75-125			
Molybdenum	0.102	0.0100	0.0006	mg/L	0.10000	ND	102	75-125			
Nickel	0.100	0.0100	0.0003	mg/L	0.10000	0.0026	98	75-125			
Selenium	0.106	0.0100	0.0014	mg/L	0.10000	ND	106	75-125			
Silver	0.0986	0.0100	0.0003	mg/L	0.10000	ND	99	75-125			
Thallium	0.0943	0.0010	0.00005	mg/L	0.10000	ND	94	75-125			
Vanadium	0.104	0.0100	0.0014	mg/L	0.10000	ND	104	75-125			
Zinc	0.0955	0.0100	0.0013	mg/L	0.10000	0.0019	94	75-125			
Lithium	0.108	0.0500	0.0011	mg/L	0.10000	0.0053	103	75-125			
Matrix Spike Dup (7050474-MSD1)		**Source: AAE0387-01**				Prepared: 05/15/17 Analyzed: 05/17/17					
Antimony	0.111	0.0030	0.0003	mg/L	0.10000	0.0004	110	75-125	3	20	
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000	ND	103	75-125	4	20	
Barium	0.132	0.0100	0.0003	mg/L	0.10000	0.0251	107	75-125	3	20	
Beryllium	0.108	0.0030	0.00007	mg/L	0.10000	0.00007	107	75-125	2	20	
Boron	1.05	0.0400	0.0060	mg/L	1.0000	0.0141	104	75-125	3	20	
Cadmium	0.101	0.0010	0.00006	mg/L	0.10000	0.0001	101	75-125	2	20	
Calcium	17.0	25.0	0.522	mg/L	1.0000	14.6	245	75-125	8	20	QM-02, J
Chromium	0.0930	0.0100	0.0003	mg/L	0.10000	ND	93	75-125	6	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	0.0099	93	75-125	3	20	
Copper	0.0980	0.0250	0.0003	mg/L	0.10000	0.0004	98	75-125	7	20	
Lead	0.0977	0.0050	0.00007	mg/L	0.10000	ND	98	75-125	1	20	
Molybdenum	0.105	0.0100	0.0006	mg/L	0.10000	ND	105	75-125	3	20	
Nickel	0.0954	0.0100	0.0003	mg/L	0.10000	0.0026	93	75-125	5	20	
Selenium	0.104	0.0100	0.0014	mg/L	0.10000	ND	104	75-125	1	20	
Silver	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125	4	20	
Thallium	0.0979	0.0010	0.00005	mg/L	0.10000	ND	98	75-125	4	20	
Vanadium	0.103	0.0100	0.0014	mg/L	0.10000	ND	103	75-125	0.9	20	
Zinc	0.0929	0.0100	0.0013	mg/L	0.10000	0.0019	91	75-125	3	20	
Lithium	0.107	0.0500	0.0011	mg/L	0.10000	0.0053	102	75-125	1	20	

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Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050474 - EPA 3005A											
Post Spike (7050474-PS1)		**Source: AAE0387-01**			Prepared: 05/15/17 Analyzed: 05/17/17						
Antimony	104			ug/L	100.00	0.356	103	80-120			
Arsenic	101			ug/L	100.00	0.394	100	80-120			
Barium	132			ug/L	100.00	25.1	107	80-120			
Beryllium	106			ug/L	100.00	0.0713	106	80-120			
Boron	1090			ug/L	1000.0	14.1	107	80-120			
Cadmium	100			ug/L	100.00	0.141	100	80-120			
Calcium	16400			ug/L	1000.0	14600	188	80-120			QM-02
Chromium	106			ug/L	100.00	0.255	106	80-120			
Cobalt	112			ug/L	100.00	9.88	102	80-120			
Copper	102			ug/L	100.00	0.417	102	80-120			
Lead	100			ug/L	100.00	0.0274	100	80-120			
Molybdenum	106			ug/L	100.00	0.329	106	80-120			
Nickel	99.6			ug/L	100.00	2.58	97	80-120			
Selenium	106			ug/L	100.00	1.38	104	80-120			
Silver	103			ug/L	100.00	0.0036	103	80-120			
Thallium	101			ug/L	100.00	0.0391	101	80-120			
Vanadium	112			ug/L	100.00	1.32	110	80-120			
Zinc	110			ug/L	100.00	1.91	108	80-120			
Lithium	115			ug/L	100.00	5.34	109	80-120			

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

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 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 Phase II Facilities

PROJECT #: Phase 2 CCR

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	P					
PRESERVATION:								3	7	3						
5/8/17	1200	GW		✓	YGWA-47	4		1	1	2						1
5/8/17	1335	GW		✓	YGWC-44	4		1	1	2						2
5/8/17	1505	GW		✓	YGWC-46	4		1	1	2						3
5/9/17	1155	GW		✓	YGWC-36	4		1	1	2						4
5/9/17	1320	GW		✓	YGWC-49	4		1	1	2						5
5/9/17	1525	GW		✓	YGWC-45	4		1	1	2						6
5/9/17	—	GW		✓	DUP-1	4		1	1	2						7
5/10/17	1205	GW		✓	YGWC-42	4		1	1	2						8
5/10/17	1015	GW		✓	YGWC-43	4		1	1	2						9
5/10/17	1150	W		✓	EB-1-5-10-17	4		1	1	2						10
5/9/17	1025	W		✓	FB-1-5-9-17	4		1	1	2						11

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: J. Berisford ACC
DATE/TIME: 5/10/17 1830
RELINQUISHED BY:
DATE/TIME: 5/11/17 0850

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

RECEIVED BY LAB: Rahman
DATE/TIME: 05/11/17 0950
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
pH Checked: Yes No NA
Ice: Yes No NA
Temperature: 1.0 Min 1.0 Max
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AAE0387
Entered into LIMS: MR
Tracking #:

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: 5/12/2017 10:59:18AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 05/11/17 09:50

Work Order: AAE0387
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 11 **#Containers:** 44

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

June 07, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAE0387 Plant Yates
Pace Project No.: 30218704

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: AAE0387 Plant Yates
Pace Project No.: 30218704

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: AAE0387 Plant Yates
Pace Project No.: 30218704

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30218704001	**YGWA-47**	Water	05/08/17 12:00	05/12/17 10:20
30218704002	**YGWC-44**	Water	05/08/17 13:35	05/12/17 10:20
30218704003	**YGWC-46**	Water	05/08/17 15:05	05/12/17 10:20
30218704004	**YGWC-36**	Water	05/09/17 11:55	05/12/17 10:20
30218704005	**YGWC-49**	Water	05/09/17 13:20	05/12/17 10:20
30218704006	**YGWC-45**	Water	05/09/17 15:25	05/12/17 10:20
30218704007	**Dup-1**	Water	05/09/17 00:00	05/12/17 10:20
30218704008	**YGWC-42**	Water	05/10/17 12:05	05/12/17 10:20
30218704009	**YGWC-43**	Water	05/10/17 10:15	05/12/17 10:20
30218704010	**EB-1-5-10-17**	Water	05/10/17 11:50	05/12/17 10:20
30218704011	**FB-1-5-9-17**	Water	05/09/17 10:25	05/12/17 10:20

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: AAE0387 Plant Yates
Pace Project No.: 30218704

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30218704001	**YGWA-47**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704002	**YGWC-44**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704003	**YGWC-46**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704004	**YGWC-36**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704005	**YGWC-49**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704006	**YGWC-45**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704007	**Dup-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704008	**YGWC-42**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704009	**YGWC-43**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704010	**EB-1-5-10-17**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704011	**FB-1-5-9-17**	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: AAE0387 Plant Yates
Pace Project No.: 30218704

Sample: YGWA-47 **Lab ID: 30218704001** Collected: 05/08/17 12:00 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	**0.120 ± 0.108 (0.206) C:86% T:NA**	pCi/L	05/26/17 08:24	13982-63-3	
Radium-228	EPA 9320	**0.335 ± 0.334 (0.688) C:81% T:85%**	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.455 ± 0.442 (0.894)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-44 **Lab ID: 30218704002** Collected: 05/08/17 13:35 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	**0.118 ± 0.108 (0.208) C:86% T:NA**	pCi/L	05/26/17 08:24	13982-63-3	
Radium-228	EPA 9320	**0.390 ± 0.399 (0.826) C:79% T:79%**	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.508 ± 0.507 (1.03)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-46 **Lab ID: 30218704003** Collected: 05/08/17 15:05 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	**0.422 ± 0.168 (0.171) C:88% T:NA**	pCi/L	05/26/17 08:22	13982-63-3	
Radium-228	EPA 9320	**0.529 ± 0.366 (0.709) C:78% T:88%**	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.949 ± 0.534 (0.880)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-36 **Lab ID: 30218704004** Collected: 05/09/17 11:55 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	**0.148 ± 0.101 (0.156) C:98% T:NA**	pCi/L	05/26/17 08:22	13982-63-3	
Radium-228	EPA 9320	**0.161 ± 0.433 (0.962) C:79% T:82%**	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.309 ± 0.534 (1.12)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-49 **Lab ID: 30218704005** Collected: 05/09/17 13:20 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	**0.217 ± 0.131 (0.198) C:90% T:NA**	pCi/L	05/26/17 08:22	13982-63-3	
Radium-228	EPA 9320	**0.302 ± 0.371 (0.786) C:79% T:77%**	pCi/L	05/31/17 15:31	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: AAE0387 Plant Yates
Pace Project No.: 30218704

Sample: YGWC-49 **Lab ID: 30218704005** Collected: 05/09/17 13:20 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	**0.519 ± 0.502 (0.984)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-45 **Lab ID: 30218704006** Collected: 05/09/17 15:25 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	**1.00 ± 0.308 (0.228) C:90% T:NA**	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	**0.403 ± 0.350 (0.707) C:79% T:87%**	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium	Total Radium Calculation	**1.40 ± 0.658 (0.935)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: Dup-1 **Lab ID: 30218704007** 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	**0.0851 ± 0.134 (0.297) C:87% T:NA**	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	**0.479 ± 0.376 (0.745) C:75% T:85%**	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.564 ± 0.510 (1.04)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-42 **Lab ID: 30218704008** Collected: 05/10/17 12:05 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	**1.87 ± 0.459 (0.296) C:88% T:NA**	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	**0.676 ± 0.370 (0.668) C:80% T:89%**	pCi/L	05/31/17 15:32	15262-20-1	
Total Radium	Total Radium Calculation	**2.55 ± 0.829 (0.964)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-43 **Lab ID: 30218704009** Collected: 05/10/17 10:15 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	**0.537 ± 0.248 (0.313) C:76% T:NA**	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	**0.735 ± 0.372 (0.641) C:82% T:82%**	pCi/L	05/31/17 15:32	15262-20-1	
Total Radium	Total Radium Calculation	**1.27 ± 0.620 (0.954)**	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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0387 Plant Yates
Pace Project No.: 30218704

Sample: EB-1-5-10-17 **Lab ID: 30218704010** Collected: 05/10/17 11:50 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	**-0.0108 ± 0.0858 (0.256) C:83% T:NA**	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	**0.314 ± 0.372 (0.786) C:82% T:83%**	pCi/L	05/31/17 15:32	15262-20-1	
Total Radium	Total Radium Calculation	**0.314 ± 0.458 (1.04)**	pCi/L	06/05/17 14:39	7440-14-4	

Sample: FB-1-5-9-17 **Lab ID: 30218704011** Collected: 05/09/17 10:25 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	**0.140 ± 0.140 (0.272) C:86% T:NA**	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	**0.255 ± 0.381 (0.823) C:93% T:76%**	pCi/L	06/02/17 16:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.395 ± 0.521 (1.10)**	pCi/L	06/06/17 14:13	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: AAE0387 Plant Yates
Pace Project No.: 30218704

QC Batch: 258875 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30218704001, 30218704002, 30218704003, 30218704004, 30218704005, 30218704006, 30218704007, 30218704008, 30218704009, 30218704010

METHOD BLANK: 1275038 Matrix: Water
Associated Lab Samples: 30218704001, 30218704002, 30218704003, 30218704004, 30218704005, 30218704006, 30218704007, 30218704008, 30218704009, 30218704010

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: AAE0387 Plant Yates
Pace Project No.: 30218704

QC Batch: 258733 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30218704006, 30218704007, 30218704008, 30218704009, 30218704010, 30218704011

METHOD BLANK: 1274461 Matrix: Water
Associated Lab Samples: 30218704006, 30218704007, 30218704008, 30218704009, 30218704010, 30218704011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00989 ± 0.108 (0.288) C:89% T:NA	pCi/L	05/22/17 09:24	

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: AAE0387 Plant Yates
Pace Project No.: 30218704

QC Batch: 259469 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30218704011

METHOD BLANK: 1278134 Matrix: Water
Associated Lab Samples: 30218704011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.550 ± 0.338 (0.616) C:94% T:73%	pCi/L	06/02/17 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: AAE0387 Plant Yates
Pace Project No.: 30218704

QC Batch: 258653 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30218704001, 30218704002, 30218704003, 30218704004, 30218704005

METHOD BLANK: 1274144 Matrix: Water
Associated Lab Samples: 30218704001, 30218704002, 30218704003, 30218704004, 30218704005

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: AAE0387 Plant Yates
Pace Project No.: 30218704

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.

30218704

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAE0387 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

Requested Analysis

WO#:30218704

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3					Radium 226, 228, Total	LAB USE ONLY
1	YGWA-47	G	5/8/2017 12:00	AAE0387-01	GW	~~3~~ 2					X	001
2	YGWC-44	G	5/8/2017 13:35	AAE0387-02	GW	2					X	002
3	YGWC-46	G	5/8/2017 15:05	AAE0387-03	GW	2					X	003
4	YGWC-36	G	5/9/2017 11:55	AAE0387-04	GW	2					X	004
5	YGWC-49	G	5/9/2017 13:20	AAE0387-05	GW	2					X	005
6	YGWC-45	G	5/9/2017 15:25	AAE0387-06	GW	2					X	006
7	Dup-1	G	5/9/2017 0:00	AAE0387-07	GW	2					X	007
8	YGWC-42	G	5/10/2017 12:05	AAE0387-08	GW	2					X	008
9	YGWC-43	G	5/10/2017 10:15	AAE0387-09	GW	2					X	009
10	EB-1-5-10-17	G	5/10/2017 11:50	AAE0387-10	W	2					X	010

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RATHMAN	5/11/17	Ashleigh Pace	5-12-17 1020	
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.

30218704

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAE0387 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

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3					Requested Analysis Radium 226, 228, Total													LAB USE ONLY
11	FB-1-5-9-17	G	5/9/2017 10:25	AAE0387-01	W	2					X													011
12																								
13																								
14																								
15																								
16																								
17																								
18																								
19																								
20																								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RAHMAN	5/11/17	[signature] Pace	5/12/17 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.

30218704

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 Phase II Facilities

PROJECT #: Phase 2 CCR

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	P						
PRESERVATION:							3	7	3							
5/8/17	1200	GW		✓	YGWA-47	4	1	1	2							1
5/8/17	1335	GW		✓	YGWC-44	4	1	1	2							2
5/8/17	1505	GW		✓	YGWC-46	4	1	1	2							3
5/9/17	1155	GW		✓	YGWC-36	4	1	1	2							4
5/9/17	1320	GW		✓	YGWC-49	4	1	1	2							5
5/9/17	1525	GW		✓	YGWC-45	4	1	1	2							6
5/9/17	—	GW		✓	Dup-1	4	1	1	2							7
5/10/17	1205	GW		✓	YGWC-42	4	1	1	2							8
5/10/17	1015	GW		✓	YGWC-43	4	1	1	2							9
5/10/17	1150	W		✓	EB-1-5-10-17	4	1	1	2							10
5/9/17	1025	W		✓	FB-1-5-9-17	4	1	1	2							11

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: J. Rexford AC
DATE/TIME: 5/10/17 1930
RELINQUISHED BY:
DATE/TIME: 5/11/17 0850

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

RECEIVED BY LAB: MCAINMAN
DATE/TIME: 05/11/17 0950
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA
Ice: Yes No NA
Temperature: 4.0 Min 4.0 Max
Custody Seal: Intact Broken Not Present
# of Coolers
Cooler ID

FOR LAB USE ONLY
LAB #: AAE00847
Entered into LIMS: MK
Tracking #:

Plant Yates COC Phase II Facilities

RTB

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA Project # 30218704

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

Tracking #: 6812 5104 3057

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: DCM 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. exceptions: VOA, coliform, TOC, O&G, Phenolics	X			15. pH<2
				Initial when completed: DCM 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: DCM 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

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	LAL
Date:	5/22/2017
Worklist:	35680
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1274461
MB concentration:	0.010
M/B Counting Uncertainty:	0.108
MB MDC:	0.288
MB Numerical Performance Indicator:	0.18
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS35680	LCSD35680
Count Date:	5/24/2017	
Spike I.D.:	13-033	
Spike Concentration (pCi/mL):	19.848	
Volume Used (mL):	0.40	
Aliquot Volume (L, g, F):	0.502	
Target Conc. (pCi/L, g, F):	15.827	
Uncertainty (Calculated):	0.745	
Result (pCi/L, g, F):	14.483	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.895	
Numerical Performance Indicator:	-2.26	
Percent Recovery:	91.51%	
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.:	30218862001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30218862001DUP	
Sample Result (pCi/L, g, F):	0.223	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.195	
Sample Duplicate Result (pCi/L, g, F):	0.160	
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:	0.510	30218862001
Duplicate RPD:	32.90%	30218862001DUP
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:	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:

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 sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30218700009DUP	
Sample Result (pCi/L, g, F):	0.493	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.348	
Sample Duplicate Result (pCi/L, g, F):	0.199	
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.

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	5/27/2017
Worklist:	35805
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1278134
MB concentration:	0.550
M/B Counting Uncertainty:	0.323
MB MDC:	0.616
MB Numerical Performance Indicator:	3.34
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS35805	LCSD35805
Count Date:	6/2/2017	
Spike I.D.:	17-005	
Spike Concentration (pCi/mL):	24.388	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.829	
Target Conc. (pCi/L, g, F):	5.885	
Uncertainty (Calculated):	0.424	
Result (pCi/L, g, F):	6.176	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.678	
Numerical Performance Indicator:	0.71	
Percent Recovery:	104.93%	
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.:	30218862001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30218862001DUP	
Sample Result (pCi/L, g, F):	0.669	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.335	
Sample Duplicate Result (pCi/L, g, F):	0.732	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.329	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.265	30218862001
Duplicate RPD:	9.05%	30218862001DUP
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:

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: AAG0387
July 25, 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.

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Attention: Mr. Joju Abraham

July 25, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AAG0387-01	Ground Water	07/11/17 10:40	07/14/17 09:20
YGWC-42	AAG0387-02	Ground Water	07/11/17 13:10	07/14/17 09:20
YGWC-43	AAG0387-03	Ground Water	07/11/17 14:50	07/14/17 09:20
Dup-1	AAG0387-04	Ground Water	07/11/17 00:00	07/14/17 09:20
YGWC-36	AAG0387-05	Ground Water	07/13/17 10:40	07/14/17 09:20
YGWC-49	AAG0387-06	Ground Water	07/13/17 12:55	07/14/17 09:20
EB-1-7-13-17	AAG0387-07	Water	07/13/17 13:30	07/14/17 09:20
YGWC-44	AAG0387-08	Ground Water	07/13/17 12:25	07/14/17 09:20
YGWC-45	AAG0387-09	Ground Water	07/13/17 10:35	07/14/17 09:20
YGWC-46	AAG0387-10	Ground Water	07/13/17 14:20	07/14/17 09:20
FB-1-7-13-17	AAG0387-11	Water	07/13/17 14:35	07/14/17 09:20

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July 25, 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.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: YGWA-47
Date/Time Sampled: 7/11/2017 10:40:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0387-01
Date/Time Received: 7/14/2017 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	193	25	10	mg/L	SM 2540 C		1	07/17/17 19:50	07/17/17 19:50	7070376	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 02:06	7070516	RLC
Fluoride	0.07	0.30	0.03	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 02:06	7070516	RLC
Sulfate	110	10	0.17	mg/L	EPA 300.0		10	07/20/17 16:43	07/23/17 00:01	7070516	RLC
Metals, Total											
Antimony	0.0006	0.0030	0.0006	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Barium	0.0233	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Boron	0.0131	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Calcium	14.3	5.00	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 22:46	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Cobalt	0.0096	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/24/17 14:21	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Lithium	0.0051	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:13	7070380	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: YGWC-42
Date/Time Sampled: 7/11/2017 1:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0387-02
Date/Time Received: 7/14/2017 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1800	25	10	mg/L	SM 2540 C		1	07/17/17 19:50	07/17/17 19:50	7070376	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 02:27	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 02:27	7070516	RLC
Sulfate	1300	50	0.85	mg/L	EPA 300.0		50	07/20/17 16:43	07/23/17 00:22	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Arsenic	0.0030	0.0050	0.0005	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Barium	0.0451	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Boron	25.2	2.00	0.298	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:09	7070491	CSW
Cadmium	0.0005	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Calcium	172	25.0	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:09	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Cobalt	0.0014	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Molybdenum	0.0014	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Selenium	0.0697	0.0100	0.0018	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Lithium	0.0281	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:15	7070380	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: YGWC-43
Date/Time Sampled: 7/11/2017 2:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0387-03
Date/Time Received: 7/14/2017 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	238	25	10	mg/L	SM 2540 C		1	07/17/17 19:50	07/17/17 19:50	7070376	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 02:48	7070516	RLC
Fluoride	0.20	0.30	0.03	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 02:48	7070516	RLC
Sulfate	110	10	0.17	mg/L	EPA 300.0		10	07/20/17 16:43	07/23/17 00:43	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Barium	0.0183	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Boron	0.994	0.0400	0.0060	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Calcium	6.71	0.500	0.0404	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Lithium	0.0131	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:18	7070380	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: Dup-1
Date/Time Sampled: 7/11/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0387-04
Date/Time Received: 7/14/2017 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1810	25	10	mg/L	SM 2540 C		1	07/17/17 19:50	07/17/17 19:50	7070376	JPT
Inorganic Anions											
Chloride	4.8	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 03:09	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 03:09	7070516	RLC
Sulfate	1200	50	0.85	mg/L	EPA 300.0		50	07/20/17 16:43	07/23/17 14:42	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Arsenic	0.0031	0.0050	0.0005	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Barium	0.0454	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Boron	24.6	2.00	0.298	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:31	7070491	CSW
Cadmium	0.0005	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Calcium	167	25.0	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:31	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Cobalt	0.0014	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Molybdenum	0.0014	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Selenium	0.0700	0.0100	0.0018	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Lithium	0.0287	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:20	7070380	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: YGWC-36
Date/Time Sampled: 7/13/2017 10:40:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0387-05
Date/Time Received: 7/14/2017 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	282	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	5.4	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 03:29	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 03:29	7070516	RLC
Sulfate	140	10	0.17	mg/L	EPA 300.0		10	07/20/17 16:43	07/23/17 01:24	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Barium	0.0484	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Beryllium	0.0003	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Boron	0.262	0.0400	0.0060	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Cadmium	0.0002	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Calcium	16.6	5.00	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:43	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Lead	0.0004	0.0050	0.00007	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Molybdenum	0.0014	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Selenium	0.0031	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Lithium	0.0070	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:22	7070380	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: YGWC-49
Date/Time Sampled: 7/13/2017 12:55:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0387-06
Date/Time Received: 7/14/2017 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	192	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 04:33	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 04:33	7070516	RLC
Sulfate	88	5.0	0.08	mg/L	EPA 300.0		5	07/20/17 16:43	07/23/17 01:45	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Barium	0.0839	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Boron	0.0093	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Calcium	14.1	5.00	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:54	7070491	CSW
Chromium	0.0019	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Cobalt	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Selenium	0.0093	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Lithium	0.0036	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:30	7070380	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

July 25, 2017

Report No.: AAG0387
Client ID: EB-1-7-13-17
Date/Time Sampled: 7/13/2017 1:30:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAG0387-07
Date/Time Received: 7/14/2017 9:20:00AM

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	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	0.08	0.25	0.02	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 04:54	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 04:54	7070516	RLC
Sulfate	0.09	1.0	0.02	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 04:54	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Boron	0.0101	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:32	7070380	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: YGWC-44
Date/Time Sampled: 7/13/2017 12:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0387-08
Date/Time Received: 7/14/2017 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	345	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	13	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 05:15	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 05:15	7070516	RLC
Sulfate	150	5.0	0.08	mg/L	EPA 300.0		5	07/20/17 16:43	07/23/17 02:05	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Barium	0.106	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Boron	0.649	0.0400	0.0060	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Calcium	30.2	25.0	2.02	mg/L	EPA 6020B		50	07/18/17 10:03	07/20/17 19:16	7070414	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Cobalt	0.0022	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Lithium	0.0124	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:34	7070380	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: YGWC-45
Date/Time Sampled: 7/13/2017 10:35:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0387-09
Date/Time Received: 7/14/2017 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	433	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 06:40	7070516	RLC
Fluoride	0.11	0.30	0.03	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 06:40	7070516	RLC
Sulfate	180	5.0	0.08	mg/L	EPA 300.0		5	07/20/17 16:43	07/23/17 02:26	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Barium	0.0719	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Boron	0.340	0.0400	0.0060	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Calcium	54.8	25.0	2.02	mg/L	EPA 6020B		50	07/18/17 10:03	07/20/17 19:28	7070414	CSW
Chromium	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Cobalt	0.0009	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Molybdenum	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Lithium	0.0129	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:37	7070380	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: YGWC-46
Date/Time Sampled: 7/13/2017 2:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAG0387-10
Date/Time Received: 7/14/2017 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	996	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	32	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 07:02	7070516	RLC
Fluoride	0.35	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 07:02	7070516	RLC
Sulfate	630	20	0.34	mg/L	EPA 300.0		20	07/20/17 16:43	07/23/17 14:22	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Arsenic	0.0011	0.0050	0.0005	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Barium	0.0365	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Boron	1.62	0.0400	0.0060	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Calcium	83.7	25.0	2.02	mg/L	EPA 6020B		50	07/18/17 10:03	07/20/17 19:39	7070414	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Cobalt	0.0265	0.0100	0.0003	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Molybdenum	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Lithium	0.0104	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:39	7070380	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387
Client ID: FB-1-7-13-17
Date/Time Sampled: 7/13/2017 2:35:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAG0387-11
Date/Time Received: 7/14/2017 9:20:00AM

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	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	0.08	0.25	0.02	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 07:23	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 07:23	7070516	RLC
Sulfate	0.28	1.0	0.02	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 07:23	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Boron	0.0061	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:41	7070380	MTC

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July 25, 2017

Report No.: AAG0387

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070376 - SM 2540 C											
Blank (7070376-BLK1)						Prepared & Analyzed: 07/17/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7070376-BS1)						Prepared & Analyzed: 07/17/17					
Total Dissolved Solids	340	25	10	mg/L	400.00		85	84-108			
Duplicate (7070376-DUP1)		**Source: AAG0277-09**				Prepared & Analyzed: 07/17/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7070376-DUP2)		**Source: AAG0387-03**				Prepared & Analyzed: 07/17/17					
Total Dissolved Solids	236	25	10	mg/L		238			0.8	10	
Batch 7070489 - SM 2540 C											
Blank (7070489-BLK1)						Prepared & Analyzed: 07/20/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7070489-BS1)						Prepared & Analyzed: 07/20/17					
Total Dissolved Solids	406	25	10	mg/L	400.00		102	84-108			
Duplicate (7070489-DUP1)		**Source: AAG0383-14**				Prepared & Analyzed: 07/20/17					
Total Dissolved Solids	2280	25	10	mg/L		2280			0.2	10	
Duplicate (7070489-DUP2)		**Source: AAG0387-07**				Prepared & Analyzed: 07/20/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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July 25, 2017

Report No.: AAG0387

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070516 - EPA 300.0											
Blank (7070516-BLK1)						Prepared: 07/20/17 Analyzed: 07/21/17					
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 (7070516-BS1)						Prepared: 07/20/17 Analyzed: 07/21/17					
Chloride	10.4	0.25	0.02	mg/L	10.020		103	90-110			
Fluoride	10.3	0.30	0.03	mg/L	10.020		103	90-110			
Sulfate	10.5	1.0	0.02	mg/L	10.050		104	90-110			
Matrix Spike (7070516-MS1)		**Source: AAG0387-05**				Prepared: 07/20/17 Analyzed: 07/21/17					
Chloride	15.4	0.25	0.02	mg/L	10.020	5.39	100	90-110			
Fluoride	10.3	0.30	0.03	mg/L	10.020	ND	102	90-110			
Sulfate	125	1.0	0.02	mg/L	10.050	129	NR	90-110			QM-02
Matrix Spike (7070516-MS2)		**Source: AAG0388-05**				Prepared: 07/20/17 Analyzed: 07/21/17					
Chloride	30.0	0.25	0.02	mg/L	10.020	21.2	87	90-110			QM-02
Fluoride	12.0	0.30	0.03	mg/L	10.020	0.20	117	90-110			QM-05
Sulfate	170	1.0	0.02	mg/L	10.050	178	NR	90-110			QM-02
Matrix Spike Dup (7070516-MSD1)		**Source: AAG0387-05**				Prepared: 07/20/17 Analyzed: 07/21/17					
Chloride	15.4	0.25	0.02	mg/L	10.020	5.39	100	90-110	0.2	15	
Fluoride	10.1	0.30	0.03	mg/L	10.020	ND	101	90-110	1	15	
Sulfate	125	1.0	0.02	mg/L	10.050	129	NR	90-110	0.3	15	QM-02

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070380 - EPA 7470A											
Blank (7070380-BLK1)						Prepared & Analyzed: 07/20/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7070380-BS1)						Prepared & Analyzed: 07/20/17					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			
Matrix Spike (7070380-MS1)		**Source: AAG0387-08**				Prepared & Analyzed: 07/20/17					
Mercury	0.00234	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7070380-MSD1)		**Source: AAG0387-08**				Prepared & Analyzed: 07/20/17					
Mercury	0.00228	0.00050	0.000041	mg/L	2.5000E-3	ND	91	75-125	3	20	
Post Spike (7070380-PS1)		**Source: AAG0387-08**				Prepared & Analyzed: 07/20/17					
Mercury	1.67			ug/L	1.6667	0.00549	100	80-120			
Batch 7070414 - EPA 3005A											
Blank (7070414-BLK1)						Prepared: 07/18/17 Analyzed: 07/20/17					
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							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							

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July 25, 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 7070414 - EPA 3005A											
LCS (7070414-BS1)						Prepared: 07/18/17 Analyzed: 07/20/17					
Antimony	0.102	0.0030	0.0006	mg/L	0.10000		102	80-120			
Arsenic	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Barium	0.102	0.0100	0.0004	mg/L	0.10000		102	80-120			
Beryllium	0.105	0.0030	0.00009	mg/L	0.10000		105	80-120			
Boron	1.11	0.0400	0.0060	mg/L	1.0000		111	80-120			
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000		101	80-120			
Calcium	1.05	0.500	0.0404	mg/L	1.0000		105	80-120			
Chromium	0.108	0.0100	0.0005	mg/L	0.10000		108	80-120			
Cobalt	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Copper	0.100	0.0250	0.0003	mg/L	0.10000		100	80-120			
Lead	0.103	0.0050	0.00007	mg/L	0.10000		103	80-120			
Molybdenum	0.104	0.0100	0.0010	mg/L	0.10000		104	80-120			
Nickel	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Selenium	0.102	0.0100	0.0018	mg/L	0.10000		102	80-120			
Silver	0.104	0.0100	0.0002	mg/L	0.10000		104	80-120			
Thallium	0.102	0.0010	0.00005	mg/L	0.10000		102	80-120			
Vanadium	0.107	0.0100	0.0012	mg/L	0.10000		107	80-120			
Zinc	0.103	0.0100	0.0012	mg/L	0.10000		103	80-120			
Lithium	0.107	0.0500	0.0015	mg/L	0.10000		107	80-120			
Matrix Spike (7070414-MS1)			**Source: AAG0387-10**			Prepared: 07/18/17 Analyzed: 07/20/17					
Antimony	0.101	0.0030	0.0006	mg/L	0.10000	ND	101	75-125			
Arsenic	0.106	0.0050	0.0005	mg/L	0.10000	0.0011	105	75-125			
Barium	0.119	0.0100	0.0004	mg/L	0.10000	0.0365	83	75-125			
Beryllium	0.0931	0.0030	0.00009	mg/L	0.10000	ND	93	75-125			
Boron	2.53	0.0400	0.0060	mg/L	1.0000	1.62	91	75-125			
Cadmium	0.103	0.0010	0.0001	mg/L	0.10000	ND	103	75-125			
Calcium	84.8	25.0	2.02	mg/L	1.0000	83.7	108	75-125			
Chromium	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Cobalt	0.130	0.0100	0.0003	mg/L	0.10000	0.0265	104	75-125			
Copper	0.0959	0.0250	0.0003	mg/L	0.10000	ND	96	75-125			
Lead	0.0983	0.0050	0.00007	mg/L	0.10000	ND	98	75-125			
Molybdenum	0.107	0.0100	0.0010	mg/L	0.10000	0.0015	105	75-125			
Nickel	0.107	0.0100	0.0005	mg/L	0.10000	0.0054	101	75-125			
Selenium	0.108	0.0100	0.0018	mg/L	0.10000	ND	108	75-125			
Silver	0.0956	0.0100	0.0002	mg/L	0.10000	ND	96	75-125			
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	ND	101	75-125			
Vanadium	0.110	0.0100	0.0012	mg/L	0.10000	ND	110	75-125			
Zinc	0.106	0.0100	0.0012	mg/L	0.10000	0.0040	102	75-125			
Lithium	0.107	0.0500	0.0015	mg/L	0.10000	0.0104	96	75-125			

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Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070414 - EPA 3005A											
Matrix Spike Dup (7070414-MSD1)		**Source: AAG0387-10**			Prepared: 07/18/17 Analyzed: 07/20/17						
Antimony	0.104	0.0030	0.0006	mg/L	0.10000	ND	104	75-125	3	20	
Arsenic	0.104	0.0050	0.0005	mg/L	0.10000	0.0011	103	75-125	2	20	
Barium	0.122	0.0100	0.0004	mg/L	0.10000	0.0365	86	75-125	2	20	
Beryllium	0.0866	0.0030	0.00009	mg/L	0.10000	ND	87	75-125	7	20	
Boron	2.45	0.0400	0.0060	mg/L	1.0000	1.62	83	75-125	3	20	
Cadmium	0.0971	0.0010	0.0001	mg/L	0.10000	ND	97	75-125	6	20	
Calcium	89.3	25.0	2.02	mg/L	1.0000	83.7	557	75-125	5	20	QM-02
Chromium	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125	0.9	20	
Cobalt	0.127	0.0100	0.0003	mg/L	0.10000	0.0265	100	75-125	3	20	
Copper	0.0921	0.0250	0.0003	mg/L	0.10000	ND	92	75-125	4	20	
Lead	0.0944	0.0050	0.00007	mg/L	0.10000	ND	94	75-125	4	20	
Molybdenum	0.107	0.0100	0.0010	mg/L	0.10000	0.0015	106	75-125	0.8	20	
Nickel	0.103	0.0100	0.0005	mg/L	0.10000	0.0054	98	75-125	3	20	
Selenium	0.107	0.0100	0.0018	mg/L	0.10000	ND	107	75-125	0.3	20	
Silver	0.0963	0.0100	0.0002	mg/L	0.10000	ND	96	75-125	0.7	20	
Thallium	0.0964	0.0010	0.00005	mg/L	0.10000	ND	96	75-125	5	20	
Vanadium	0.107	0.0100	0.0012	mg/L	0.10000	ND	107	75-125	3	20	
Zinc	0.101	0.0100	0.0012	mg/L	0.10000	0.0040	97	75-125	5	20	
Lithium	0.101	0.0500	0.0015	mg/L	0.10000	0.0104	90	75-125	6	20	
Post Spike (7070414-PS1)		**Source: AAG0387-10**			Prepared: 07/18/17 Analyzed: 07/20/17						
Antimony	102			ug/L	100.00	0.433	101	80-120			
Arsenic	104			ug/L	100.00	1.05	102	80-120			
Barium	122			ug/L	100.00	36.5	86	80-120			
Beryllium	88.6			ug/L	100.00	0.0154	89	80-120			
Boron	2520			ug/L	1000.0	1620	90	80-120			
Cadmium	99.5			ug/L	100.00	0.0284	99	80-120			
Calcium	83200			ug/L	1000.0	83700	NR	80-120			QM-02
Chromium	101			ug/L	100.00	0.357	101	80-120			
Cobalt	123			ug/L	100.00	26.5	97	80-120			
Copper	92.0			ug/L	100.00	0.184	92	80-120			
Lead	94.2			ug/L	100.00	0.0118	94	80-120			
Molybdenum	109			ug/L	100.00	1.54	107	80-120			
Nickel	102			ug/L	100.00	5.37	96	80-120			
Selenium	105			ug/L	100.00	0.612	104	80-120			
Silver	95.9			ug/L	100.00	0.0028	96	80-120			
Thallium	95.6			ug/L	100.00	0.0057	96	80-120			
Vanadium	107			ug/L	100.00	0.726	107	80-120			
Zinc	103			ug/L	100.00	3.98	99	80-120			
Lithium	104			ug/L	100.00	10.4	94	80-120			

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Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070491 - EPA 3005A											
Blank (7070491-BLK1)						Prepared: 07/20/17 Analyzed: 07/21/17					
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	0.0003	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							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							
LCS (7070491-BS1)						Prepared: 07/20/17 Analyzed: 07/24/17					
Antimony	0.120	0.0030	0.0006	mg/L	0.10000		120	80-120			
Arsenic	0.114	0.0050	0.0005	mg/L	0.10000		114	80-120			
Barium	0.106	0.0100	0.0004	mg/L	0.10000		106	80-120			
Beryllium	0.111	0.0030	0.00009	mg/L	0.10000		111	80-120			
Boron	1.13	0.0400	0.0060	mg/L	1.0000		113	80-120			
Cadmium	0.120	0.0010	0.0001	mg/L	0.10000		120	80-120			
Calcium	1.18	0.500	0.0404	mg/L	1.0000		118	80-120			
Chromium	0.114	0.0100	0.0005	mg/L	0.10000		114	80-120			
Cobalt	0.115	0.0100	0.0003	mg/L	0.10000		115	80-120			
Copper	0.114	0.0250	0.0003	mg/L	0.10000		114	80-120			
Lead	0.113	0.0050	0.00007	mg/L	0.10000		113	80-120			
Molybdenum	0.119	0.0100	0.0010	mg/L	0.10000		119	80-120			
Nickel	0.116	0.0100	0.0005	mg/L	0.10000		116	80-120			
Selenium	0.111	0.0100	0.0018	mg/L	0.10000		111	80-120			
Silver	0.117	0.0100	0.0002	mg/L	0.10000		117	80-120			
Thallium	0.116	0.0010	0.00005	mg/L	0.10000		116	80-120			
Vanadium	0.115	0.0100	0.0012	mg/L	0.10000		115	80-120			
Zinc	0.116	0.0100	0.0012	mg/L	0.10000		116	80-120			
Lithium	0.109	0.0500	0.0015	mg/L	0.10000		109	80-120			

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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 7070491 - EPA 3005A											
Matrix Spike (7070491-MS1)		**Source: AAG0387-01**				Prepared: 07/20/17 Analyzed: 07/21/17					
Antimony	0.115	0.0030	0.0006	mg/L	0.10000	0.0006	114	75-125			
Arsenic	0.0995	0.0050	0.0005	mg/L	0.10000	ND	99	75-125			
Barium	0.117	0.0100	0.0004	mg/L	0.10000	0.0233	94	75-125			
Beryllium	0.0981	0.0030	0.00009	mg/L	0.10000	ND	98	75-125			
Boron	1.02	0.0400	0.0060	mg/L	1.0000	0.0131	101	75-125			
Cadmium	0.106	0.0010	0.0001	mg/L	0.10000	ND	106	75-125			
Calcium	15.3	25.0	2.02	mg/L	1.0000	14.3	101	75-125			J
Chromium	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125			
Cobalt	0.118	0.0100	0.0003	mg/L	0.10000	0.0096	109	75-125			
Copper	0.0984	0.0250	0.0003	mg/L	0.10000	0.0004	98	75-125			
Lead	0.0978	0.0050	0.00007	mg/L	0.10000	ND	98	75-125			
Molybdenum	0.106	0.0100	0.0010	mg/L	0.10000	ND	106	75-125			
Nickel	0.104	0.0100	0.0005	mg/L	0.10000	0.0025	102	75-125			
Selenium	0.100	0.0100	0.0018	mg/L	0.10000	ND	100	75-125			
Silver	0.0994	0.0100	0.0002	mg/L	0.10000	ND	99	75-125			
Thallium	0.100	0.0010	0.00005	mg/L	0.10000	ND	100	75-125			
Vanadium	0.104	0.0100	0.0012	mg/L	0.10000	ND	104	75-125			
Zinc	0.108	0.0100	0.0012	mg/L	0.10000	0.0043	104	75-125			
Lithium	0.103	0.0500	0.0015	mg/L	0.10000	0.0051	98	75-125			
Matrix Spike Dup (7070491-MSD1)		**Source: AAG0387-01**				Prepared: 07/20/17 Analyzed: 07/21/17					
Antimony	0.117	0.0030	0.0006	mg/L	0.10000	0.0006	117	75-125	2	20	
Arsenic	0.103	0.0050	0.0005	mg/L	0.10000	ND	103	75-125	3	20	
Barium	0.120	0.0100	0.0004	mg/L	0.10000	0.0233	97	75-125	3	20	
Beryllium	0.104	0.0030	0.00009	mg/L	0.10000	ND	104	75-125	6	20	
Boron	1.06	0.0400	0.0060	mg/L	1.0000	0.0131	105	75-125	4	20	
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	ND	101	75-125	5	20	
Calcium	15.5	25.0	2.02	mg/L	1.0000	14.3	123	75-125	1	20	J
Chromium	0.106	0.0100	0.0005	mg/L	0.10000	ND	106	75-125	3	20	
Cobalt	0.117	0.0100	0.0003	mg/L	0.10000	0.0096	108	75-125	1	20	
Copper	0.0987	0.0250	0.0003	mg/L	0.10000	0.0004	98	75-125	0.3	20	
Lead	0.0981	0.0050	0.00007	mg/L	0.10000	ND	98	75-125	0.3	20	
Molybdenum	0.106	0.0100	0.0010	mg/L	0.10000	ND	106	75-125	0.05	20	
Nickel	0.107	0.0100	0.0005	mg/L	0.10000	0.0025	104	75-125	3	20	
Selenium	0.102	0.0100	0.0018	mg/L	0.10000	ND	102	75-125	2	20	
Silver	0.101	0.0100	0.0002	mg/L	0.10000	ND	101	75-125	2	20	
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	ND	101	75-125	0.6	20	
Vanadium	0.107	0.0100	0.0012	mg/L	0.10000	ND	107	75-125	3	20	
Zinc	0.107	0.0100	0.0012	mg/L	0.10000	0.0043	103	75-125	0.8	20	
Lithium	0.110	0.0500	0.0015	mg/L	0.10000	0.0051	104	75-125	6	20	

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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 7070491 - EPA 3005A											
Post Spike (7070491-PS1)		**Source: AAG0387-01**				Prepared: 07/20/17 Analyzed: 07/21/17					
Antimony	106			ug/L	100.00	0.648	105	80-120			
Arsenic	102			ug/L	100.00	0.0447	102	80-120			
Barium	115			ug/L	100.00	23.3	92	80-120			
Beryllium	100			ug/L	100.00	0.0625	100	80-120			
Boron	1030			ug/L	1000.0	13.1	102	80-120			
Cadmium	103			ug/L	100.00	0.142	103	80-120			
Calcium	15300			ug/L	1000.0	14300	95	80-120			
Chromium	101			ug/L	100.00	0.196	101	80-120			
Cobalt	113			ug/L	100.00	9.61	103	80-120			
Copper	100			ug/L	100.00	0.386	100	80-120			
Lead	97.0			ug/L	100.00	0.0209	97	80-120			
Molybdenum	103			ug/L	100.00	0.316	103	80-120			
Nickel	99.9			ug/L	100.00	2.47	97	80-120			
Selenium	104			ug/L	100.00	1.29	103	80-120			
Silver	99.1			ug/L	100.00	-0.0002	99	80-120			
Thallium	98.5			ug/L	100.00	0.0377	98	80-120			
Vanadium	105			ug/L	100.00	0.324	105	80-120			
Zinc	105			ug/L	100.00	4.33	101	80-120			
Lithium	103			ug/L	100.00	5.08	98	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

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 Phase II Facilities

PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE m-dd-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	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:							P	P	P	P							
PRESERVATION:							3	7	3								
7-11-17	1040	GW		✓	YGWA-47	4	1	1	2							1	
7-11-17	1310	GW		✓	YGWC-42	4	1	1	2							2	
7-11-17	1450	GW		✓	YGWC-43	4	1	1	2							3	
7-11-17	—	GW		✓	DUP-1	4	1	1	2							4	
7-13-17	1040	GW		✓	YGWC-36	6	1	1	4							5	extra Rdd here
7-13-17	1255	GW		✓	YGWC-49	4	1	1	2							6	
7-13-17	1330	W		✓	EB-1-7-13-17	4	1	1	2							7	
7-13-17	1225	GW		✓	YGWC-44	4	1	1	2							8	
7-13-17	1035	GW		✓	YGWC-45	4	1	1	2							9	
7-13-17	1420	GW		✓	YGWC-46	4	1	1	2							10	
7-13-17	1435	W		✓	FB-1-7-13-17 +	4	1	1	2							11	+ FB-1-7-13-17 (EP).

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

DATE/TIME: 7-13-2017 1715

RELINQUISHED BY:

DATE/TIME: 7-14-17 0920

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY LAB: Laurman

DATE/TIME: 07/14/17 0920

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

Custody Seal: Intact Broken Not Present

# of Coolers:

Cooler ID:

Packed: No NA

Ice: Yes No NA

Temperature: Min: 3.1 Max:

FOR LAB USE ONLY

LAB #: AAG0387

Entered into LIMS: MR

Tracking #:

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # AAG0387

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-2 Type of Ice: (Wet) Blue None ☐ Samples on Ice, cooling process has begun

Cooler Temperature 3.1 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: 7/17/2017 12:13:35PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 07/14/17 09:20

Work Order: AAG0387
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 11 **#Containers:** 46

Minimum Temp(C): 3.1 **Maximum Temp(C):** 3.1 **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

August 07, 2017

Ms. Lauren Petty
GA Power
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: AAG0387 Plant Yates
Pace Project No.: 30224382

Dear Ms. Petty:
Enclosed are the analytical results for sample(s) received by the laboratory on July 17, 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: AAG0387 Plant Yates
Pace Project No.: 30224382

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: AAG0387 Plant Yates
Pace Project No.: 30224382

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30224382001	**YGWA-47**	Water	07/11/17 10:40	07/17/17 09:30
30224382002	**YGWC-42**	Water	07/11/17 13:10	07/17/17 09:30
30224382003	**YGWC-43**	Water	07/11/17 14:50	07/17/17 09:30
30224382004	**Dup-1**	Water	07/11/17 00:00	07/17/17 09:30
30224382005	**YGWC-36**	Water	07/13/17 10:40	07/17/17 09:30
30224382006	**YGWC-49**	Water	07/13/17 12:55	07/17/17 09:30
30224382007	**EB-1-7-13-17**	Water	07/13/17 13:30	07/17/17 09:30
30224382008	**YGWC-44**	Water	07/13/17 12:25	07/17/17 09:30
30224382009	**YGWC-45**	Water	07/13/17 10:35	07/17/17 09:30
30224382010	**YGWC-46**	Water	07/13/17 14:20	07/17/17 09:30
30224382011	**FB-1-7-13-17**	Water	07/13/17 14:35	07/17/17 09:30

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(724)850-5600

SAMPLE ANALYTE COUNT

Project: AAG0387 Plant Yates
Pace Project No.: 30224382

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30224382001	**YGWA-47**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382002	**YGWC-42**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382003	**YGWC-43**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382004	**Dup-1**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382005	**YGWC-36**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382006	**YGWC-49**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382007	**EB-1-7-13-17**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382008	**YGWC-44**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382009	**YGWC-45**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382010	**YGWC-46**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382011	**FB-1-7-13-17**	EPA 9315	JC2	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: AAG0387 Plant Yates
Pace Project No.: 30224382

Sample: YGWA-47 **Lab ID: 30224382001** Collected: 07/11/17 10:40 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.280 ± 0.133 (0.146) C:90% T:NA**	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	**0.191 ± 0.350 (0.766) C:80% T:85%**	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.471 ± 0.483 (0.912)**	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-42 **Lab ID: 30224382002** Collected: 07/11/17 13:10 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**1.77 ± 0.391 (0.161) C:94% T:NA**	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	**2.17 ± 0.717 (0.986) C:81% T:61%**	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**3.94 ± 1.11 (1.15)**	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-43 **Lab ID: 30224382003** Collected: 07/11/17 14:50 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.724 ± 0.228 (0.188) C:88% T:NA**	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	**0.300 ± 0.349 (0.737) C:78% T:91%**	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**1.02 ± 0.577 (0.925)**	pCi/L	08/04/17 11:56	7440-14-4	

Sample: Dup-1 **Lab ID: 30224382004** Collected: 07/11/17 00:00 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**1.73 ± 0.394 (0.141) C:85% T:NA**	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	**0.679 ± 0.422 (0.801) C:79% T:82%**	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**2.41 ± 0.816 (0.942)**	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-36 **Lab ID: 30224382005** Collected: 07/13/17 10:40 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.322 ± 0.142 (0.150) C:92% T:NA**	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	**0.296 ± 0.350 (0.739) C:80% T:81%**	pCi/L	08/02/17 15:59	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: AAG0387 Plant Yates
Pace Project No.: 30224382

Sample: YGWC-36 **Lab ID: 30224382005** Collected: 07/13/17 10:40 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.618 ± 0.492 (0.889)**	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-49 **Lab ID: 30224382006** Collected: 07/13/17 12:55 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.288 ± 0.152 (0.226) C:88% T:NA**	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	**0.212 ± 0.373 (0.815) C:84% T:76%**	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.500 ± 0.525 (1.04)**	pCi/L	08/04/17 11:56	7440-14-4	

Sample: EB-1-7-13-17 **Lab ID: 30224382007** Collected: 07/13/17 13:30 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.293 ± 0.143 (0.182) C:90% T:NA**	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	**0.585 ± 0.365 (0.691) C:83% T:86%**	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.878 ± 0.508 (0.873)**	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-44 **Lab ID: 30224382008** Collected: 07/13/17 12:25 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.315 ± 0.137 (0.145) C:101% T:NA**	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	**0.455 ± 0.381 (0.770) C:82% T:85%**	pCi/L	08/02/17 16:00	15262-20-1	
Total Radium	Total Radium Calculation	**0.770 ± 0.518 (0.915)**	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-45 **Lab ID: 30224382009** Collected: 07/13/17 10:35 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.611 ± 0.201 (0.163) C:94% T:NA**	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	**-0.339 ± 0.334 (0.858) C:77% T:85%**	pCi/L	08/02/17 18:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.611 ± 0.535 (1.02)**	pCi/L	08/04/17 11:56	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: AAG0387 Plant Yates
Pace Project No.: 30224382

Sample: YGWC-46 **Lab ID: 30224382010** Collected: 07/13/17 14:20 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.657 ± 0.204 (0.152) C:97% T:NA**	pCi/L	08/02/17 09:41	13982-63-3	
Radium-228	EPA 9320	**0.752 ± 0.408 (0.693) C:77% T:81%**	pCi/L	08/02/17 18:09	15262-20-1	
Total Radium	Total Radium Calculation	**1.41 ± 0.612 (0.845)**	pCi/L	08/04/17 11:56	7440-14-4	

Sample: FB-1-7-13-17 **Lab ID: 30224382011** Collected: 07/13/17 14:35 Received: 07/17/17 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.109 ± 0.0982 (0.178) C:89% T:NA**	pCi/L	08/02/17 09:42	13982-63-3	
Radium-228	EPA 9320	**0.478 ± 0.376 (0.738) C:82% T:87%**	pCi/L	08/02/17 18:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.587 ± 0.474 (0.916)**	pCi/L	08/04/17 11:56	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: AAG0387 Plant Yates
Pace Project No.: 30224382

QC Batch: 265653 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30224382001, 30224382002, 30224382003, 30224382004, 30224382005, 30224382006, 30224382007, 30224382008, 30224382009, 30224382010, 30224382011

METHOD BLANK: 1308228 Matrix: Water
Associated Lab Samples: 30224382001, 30224382002, 30224382003, 30224382004, 30224382005, 30224382006, 30224382007, 30224382008, 30224382009, 30224382010, 30224382011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.302 ± 0.274 (0.549) C:82% T:85%	pCi/L	08/02/17 16:00	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAG0387 Plant Yates
Pace Project No.: 30224382

QC Batch: 265657 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30224382001, 30224382002, 30224382003, 30224382004, 30224382005, 30224382006, 30224382007, 30224382008, 30224382009, 30224382010, 30224382011

METHOD BLANK: 1308239 Matrix: Water
Associated Lab Samples: 30224382001, 30224382002, 30224382003, 30224382004, 30224382005, 30224382006, 30224382007, 30224382008, 30224382009, 30224382010, 30224382011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.254 ± 0.116 (0.177) C:89% T:NA	pCi/L	08/01/17 19:52	

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: AAG0387 Plant Yates
Pace Project No.: 30224382

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.

WO# : 30224382

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAG0387 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 8/8/2017

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	YGWA-47	G	7/11/2017 10:40	AAG0387-01	GW	2	X	001
2	YGWC-42	G	7/11/2017 13:10	AAG0387-02	GW	2	X	002
3	YGWC-43	G	7/11/2017 14:50	AAG0387-03	GW	2	X	003
4	Dup-1	G	7/11/2017 0:00	AAG0387-04	GW	2	X	004
5	YGWC-36	G	7/13/2017 10:40	AAG0387-05	GW	4	X	005
6	YGWC-49	G	7/13/2017 12:55	AAG0387-06	GW	2	X	006
7	EB-1-7-13-17	G	7/13/2017 13:30	AAG0387-07	W	2	X	007
8	YGWC-44	G	7/13/2017 12:25	AAG0387-08	GW	2	X	008
9	YGWC-45	G	7/13/2017 10:35	AAG0387-09	GW	2	X	009
10	YGWC-46	G	7/13/2017 14:20	AAG0387-10	GW	2	X	010

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RAHMAN	7/14/17	Ashley Hall/Pace	7-17-17/0930	
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.

30224382

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAG0387 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 8/8/2017

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
11	FB-1-7-13-17	G	7/13/2017 14:35	AAG0387-11	GW	2	X	011
12								
13								
14								
15								
16								
17								
18								
19								
20								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RAHMAN	7/14/17	Ashleybaum/Pace	7-17-17/0930	
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.

30224382

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 Phase II Facilities
PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE m-dd-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	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:								P	P	P	P							
PRESERVATION:								3	7	3								
7-11-17	1040	GW		✓	YGWA-47	4		1	1	2							1	
7-11-17	1310	GW		✓	YGWC-42	4		1	1	2							2	
7-11-17	1450	GW		✓	YGWC-43	4		1	1	2							3	
7-11-17	—	GW		✓	DUP-1	4		1	1	2							4	
7-13-17	1040	GW		✓	YGWC-36	6		1	1	4							5	extra Rad here
7-13-17	1255	GW		✓	YGWC-49	4		1	1	2							6	
7-13-17	1330	W		✓	EB-1-7-13-17	4		1	1	2							7	
7-13-17	1225	GW		✓	YGWC-44	4		1	1	2							8	
7-13-17	1035	GW		✓	YGWC-45	4		1	1	2							9	
7-13-17	1420	GW		✓	YGWC-46	4		1	1	2							10	
7-13-17	1435	W		✓	FB-1-7-13-17 *	4		1	1	2							11	* FB-1-7-13-17 (DP).

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, B. Walker
DATE/TIME: 7-13-2017 1715

RELINQUISHED BY:
DATE/TIME: 7-14-17 0920

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB: Maatman
DATE/TIME: 07/14/17 0920

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

pH checked: Yes No NA
Ice: Yes No NA
Temperature: Min: 3.1 Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AAG0387
Entered into LIMS: MR
Tracking #:

Sample Condition Upon Receipt 30224382

Pace Analytical

Client Name: GA Power Project # AAG0387

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-2 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.1 Biological Tissue is Frozen: Yes No Date and Initials of person examining contents: 7/14/17 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)

F-ALLC003rev.3, 11September2006

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA Project # 30224382

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

Label AML

Tracking #: 7413 6657 2151

LIMS Login BLM

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: AML 7-17-17

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:	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
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed AML 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: AML Date: 7-17-17

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-228
Analyst:	VAL
Date:	7/26/2017
Worklist:	36803
Matrix:	DW

Method Blank Assessment

MB Sample ID	1308228
MB concentration:	0.302
M/B Counting Uncertainty:	0.268
MB MDC:	0.549
MB Numerical Performance Indicator:	2.21
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS36803	LCSD36803
Count Date:	8/2/2017	
Spike I.D.:	17-005	
Spike Concentration (pCi/mL):	23.902	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.820	
Target Conc. (pCi/L, g, F):	5.833	
Uncertainty (Calculated):	0.420	
Result (pCi/L, g, F):	6.019	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.700	
Numerical Performance Indicator:	0.45	
Percent Recovery:	103.19%	
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

		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	30224382005	
Duplicate Sample I.D.	30224382005DUP	
Sample Result (pCi/L, g, F):	0.296	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.346	
Sample Duplicate Result (pCi/L, g, F):	0.756	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.446	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.599	30224382005
Duplicate RPD:	87.57%	30224382005DUP
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:

*Numerical Indicator is acceptable.

8/7/17

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

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	JC2
Date:	7/27/2017
Worklist:	36807
Matrix:	DW

Method Blank Assessment

MB Sample ID	1308239
MB concentration:	0.254
M/B Counting Uncertainty:	0.110
MB MDC:	0.177
MB Numerical Performance Indicator:	4.54
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC	See Comment*

Laboratory Control Sample Assessment

	LCS36807	LCSD36807
	LCSD (Y or N)?	N
Count Date:	8/2/2017	
Spike I.D.:	17-030	
Spike Concentration (pCi/mL):	80.197	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.515	
Target Conc. (pCi/L, g, F):	15.579	
Uncertainty (Calculated):	1.435	
Result (pCi/L, g, F):	13.665	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.836	
Numerical Performance Indicator:	-2.26	
Percent Recovery:	87.72%	
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.:	30224382005
Duplicate Sample I.D.	30224382005DUP
Sample Result (pCi/L, g, F):	0.322
Sample Result Counting Uncertainty (pCi/L, g, F):	0.134
Sample Duplicate Result (pCi/L, g, F):	0.152
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.122
Are sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	1.842
Duplicate RPD:	71.88%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***

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

30224382005
30224382005DUP

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.

* Numerical Indicator is acceptable.

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.

8/7/17

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: AAJ0387
October 27, 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

October 27, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AAJ0387-01	Ground Water	10/10/17 10:55	10/11/17 17:25
YGWC-44	AAJ0387-02	Ground Water	10/10/17 14:15	10/11/17 17:25
YGWC-45	AAJ0387-03	Ground Water	10/10/17 12:40	10/11/17 17:25
EB-1-10-10-17	AAJ0387-04	Water	10/10/17 15:05	10/11/17 17:25
YGWC-46	AAJ0387-05	Ground Water	10/11/17 11:40	10/11/17 17:25
YGWC-49	AAJ0387-06	Ground Water	10/11/17 13:25	10/11/17 17:25
Dup-1	AAJ0387-07	Ground Water	10/11/17 00:00	10/11/17 17:25

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

October 27, 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

October 27, 2017

Report No.: AAJ0387
Client ID: YGWA-47
Date/Time Sampled: 10/10/2017 10:55:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0387-01
Date/Time Received: 10/11/2017 5:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	175	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	5.9	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 14:48	7100429	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 14:48	7100429	RLC
Sulfate	93	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 11:46	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Barium	0.0207	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Boron	0.0124	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Calcium	12.1	5.00	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 19:17	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Cobalt	0.0036	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:32	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Lithium	0.0043	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:35	7100415	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

October 27, 2017

Report No.: AAJ0387
Client ID: YGWC-44
Date/Time Sampled: 10/10/2017 2:15:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0387-02
Date/Time Received: 10/11/2017 5:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	311	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	14	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 15:50	7100429	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 15:50	7100429	RLC
Sulfate	140	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 12:07	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Barium	0.112	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Boron	0.603	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Calcium	27.2	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 19:40	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Cobalt	0.0017	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:38	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Lithium	0.0123	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:38	7100415	MTC

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Attention: Mr. Joju Abraham

October 27, 2017

Report No.: AAJ0387
Client ID: YGWC-45
Date/Time Sampled: 10/10/2017 12:40:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0387-03
Date/Time Received: 10/11/2017 5:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	396	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	4.5	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 16:11	7100429	RLC
Fluoride	0.39	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 16:11	7100429	RLC
Sulfate	180	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 12:28	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Arsenic	0.0006	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Barium	0.0708	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Boron	0.319	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Calcium	52.8	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 19:51	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Cobalt	0.0008	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Molybdenum	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:44	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Lithium	0.0150	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:40	7100415	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 27, 2017

Report No.: AAJ0387
Client ID: EB-1-10-10-17
Date/Time Sampled: 10/10/2017 3:05:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAJ0387-04
Date/Time Received: 10/11/2017 5:25:00PM

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	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	0.09	0.25	0.02	mg/L	EPA 300.0	J	1	10/15/17 10:10	10/15/17 16:32	7100429	RLC
Fluoride	0.87	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 16:32	7100429	RLC
Sulfate	0.12	1.0	0.02	mg/L	EPA 300.0	J	1	10/15/17 10:10	10/15/17 16:32	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Calcium	0.0605	0.500	0.0404	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:50	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:42	7100415	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 27, 2017

Report No.: AAJ0387
Client ID: YGWC-46
Date/Time Sampled: 10/11/2017 11:40:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0387-05
Date/Time Received: 10/11/2017 5:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	835	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	29	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 18:15	7100429	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 18:15	7100429	RLC
Sulfate	540	20	0.34	mg/L	EPA 300.0		20	10/15/17 10:10	10/20/17 12:50	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Arsenic	0.0011	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Barium	0.0288	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Boron	1.17	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Calcium	69.0	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 20:08	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Cobalt	0.0556	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Molybdenum	0.0020	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:55	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Lithium	0.0099	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:45	7100415	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 27, 2017

Report No.: AAJ0387
Client ID: YGWC-49
Date/Time Sampled: 10/11/2017 1:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0387-06
Date/Time Received: 10/11/2017 5:25:00PM

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	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 18:36	7100429	RLC
Fluoride	0.14	0.30	0.03	mg/L	EPA 300.0	J	1	10/15/17 10:10	10/15/17 18:36	7100429	RLC
Sulfate	86	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 13:11	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Arsenic	0.0006	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Barium	0.0780	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Calcium	12.4	5.00	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 20:20	7100507	CSW
Chromium	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Selenium	0.0089	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/26/17 18:18	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Lithium	0.0036	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:47	7100415	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 27, 2017

Report No.: AAJ0387
Client ID: Dup-1
Date/Time Sampled: 10/11/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0387-07
Date/Time Received: 10/11/2017 5:25:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	168	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	5.7	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 19:17	7100429	RLC
Fluoride	0.13	0.30	0.03	mg/L	EPA 300.0	J	1	10/15/17 10:10	10/15/17 19:17	7100429	RLC
Sulfate	83	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 13:32	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Barium	0.0765	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Calcium	12.4	5.00	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 20:43	7100507	CSW
Chromium	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Selenium	0.0062	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Lithium	0.0036	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:49	7100415	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

October 27, 2017

Report No.: AAJ0387

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100400 - SM 2540 C											
Blank (7100400-BLK1)						Prepared & Analyzed: 10/13/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7100400-BS1)						Prepared & Analyzed: 10/13/17					
Total Dissolved Solids	368	25	10	mg/L	400.00		92	84-108			
Duplicate (7100400-DUP1)		**Source: AAJ0387-04**				Prepared & Analyzed: 10/13/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7100400-DUP2)		**Source: AAJ0389-01**				Prepared & Analyzed: 10/13/17					
Total Dissolved Solids	225	25	10	mg/L		204			10	10	

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October 27, 2017

Report No.: AAJ0387

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100429 - EPA 300.0											
Blank (7100429-BLK1)						Prepared & Analyzed: 10/15/17					
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 (7100429-BS1)						Prepared & Analyzed: 10/15/17					
Chloride	10.9	0.25	0.02	mg/L	10.020		108	90-110			
Fluoride	9.65	0.30	0.03	mg/L	10.020		96	90-110			
Sulfate	10.6	1.0	0.02	mg/L	10.050		105	90-110			
Matrix Spike (7100429-MS1)			**Source: AAJ0387-01**			Prepared & Analyzed: 10/15/17					
Chloride	15.7	0.25	0.02	mg/L	10.020	5.87	99	90-110			
Fluoride	9.92	0.30	0.03	mg/L	10.020	ND	99	90-110			
Sulfate	91.9	1.0	0.02	mg/L	10.050	92.1	NR	90-110			QM-02
Matrix Spike (7100429-MS2)			**Source: AAJ0387-06**			Prepared & Analyzed: 10/15/17					
Chloride	15.2	0.25	0.02	mg/L	10.020	5.81	94	90-110			
Fluoride	9.93	0.30	0.03	mg/L	10.020	0.14	98	90-110			
Sulfate	86.2	1.0	0.02	mg/L	10.050	84.8	14	90-110			QM-02
Matrix Spike Dup (7100429-MSD1)			**Source: AAJ0387-01**			Prepared & Analyzed: 10/15/17					
Chloride	15.7	0.25	0.02	mg/L	10.020	5.87	98	90-110	0.08	15	
Fluoride	9.99	0.30	0.03	mg/L	10.020	ND	100	90-110	0.7	15	
Sulfate	92.0	1.0	0.02	mg/L	10.050	92.1	NR	90-110	0.04	15	QM-02

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October 27, 2017

Report No.: AAJ0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100415 - EPA 7470A											
Blank (7100415-BLK1)						Prepared: 10/16/17 Analyzed: 10/17/17					
Mercury	ND	0.00050	0.000036	mg/L							
LCS (7100415-BS1)						Prepared: 10/16/17 Analyzed: 10/17/17					
Mercury	0.00236	0.00050	0.000036	mg/L	2.5000E-3		94	80-120			
Matrix Spike (7100415-MS1)		**Source: AAJ0387-01**				Prepared: 10/16/17 Analyzed: 10/17/17					
Mercury	0.00238	0.00050	0.000036	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (7100415-MSD1)		**Source: AAJ0387-01**				Prepared: 10/16/17 Analyzed: 10/17/17					
Mercury	0.00233	0.00050	0.000036	mg/L	2.5000E-3	ND	93	75-125	2	20	
Post Spike (7100415-PS1)		**Source: AAJ0387-01**				Prepared: 10/16/17 Analyzed: 10/17/17					
Mercury	1.69			ug/L	1.6667	-0.00382	101	80-120			
Batch 7100507 - EPA 3005A											
Blank (7100507-BLK1)						Prepared: 10/18/17 Analyzed: 10/19/17					
Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	0.0006	0.0050	0.0005	mg/L							J
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	0.0021	0.0100	0.0012	mg/L							J
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 27, 2017

Report No.: AAJ0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100507 - EPA 3005A											
LCS (7100507-BS1)						Prepared: 10/18/17 Analyzed: 10/19/17					
Antimony	0.102	0.0030	0.0006	mg/L	0.10000		102	80-120			
Arsenic	0.0967	0.0050	0.0005	mg/L	0.10000		97	80-120			
Barium	0.0981	0.0100	0.0004	mg/L	0.10000		98	80-120			
Beryllium	0.107	0.0030	0.00009	mg/L	0.10000		107	80-120			
Cadmium	0.100	0.0010	0.0001	mg/L	0.10000		100	80-120			
Chromium	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Cobalt	0.0988	0.0100	0.0003	mg/L	0.10000		99	80-120			
Copper	0.0991	0.0250	0.0003	mg/L	0.10000		99	80-120			
Lead	0.103	0.0050	0.00007	mg/L	0.10000		103	80-120			
Nickel	0.0996	0.0100	0.0005	mg/L	0.10000		100	80-120			
Selenium	0.103	0.0100	0.0018	mg/L	0.10000		103	80-120			
Silver	0.100	0.0100	0.0002	mg/L	0.10000		100	80-120			
Thallium	0.104	0.0010	0.00005	mg/L	0.10000		104	80-120			
Vanadium	0.101	0.0100	0.0012	mg/L	0.10000		101	80-120			
Zinc	0.101	0.0100	0.0012	mg/L	0.10000		101	80-120			
Lithium	0.102	0.0500	0.0015	mg/L	0.10000		102	80-120			
Matrix Spike (7100507-MS1)		**Source: AAJ0387-02**				Prepared: 10/18/17 Analyzed: 10/19/17					
Antimony	0.101	0.0030	0.0006	mg/L	0.10000	ND	101	75-125			
Arsenic	0.101	0.0050	0.0005	mg/L	0.10000	0.0007	100	75-125			
Barium	0.216	0.0100	0.0004	mg/L	0.10000	0.112	104	75-125			
Beryllium	0.0954	0.0030	0.00009	mg/L	0.10000	ND	95	75-125			
Cadmium	0.0974	0.0010	0.0001	mg/L	0.10000	ND	97	75-125			
Chromium	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125			
Cobalt	0.0987	0.0100	0.0003	mg/L	0.10000	0.0017	97	75-125			
Copper	0.0959	0.0250	0.0003	mg/L	0.10000	ND	96	75-125			
Lead	0.101	0.0050	0.00007	mg/L	0.10000	ND	101	75-125			
Nickel	0.0970	0.0100	0.0005	mg/L	0.10000	0.0013	96	75-125			
Selenium	0.106	0.0100	0.0018	mg/L	0.10000	ND	106	75-125			
Silver	0.0974	0.0100	0.0002	mg/L	0.10000	ND	97	75-125			
Thallium	0.103	0.0010	0.00005	mg/L	0.10000	ND	103	75-125			
Vanadium	0.101	0.0100	0.0012	mg/L	0.10000	0.0018	99	75-125			
Zinc	0.0996	0.0100	0.0012	mg/L	0.10000	ND	100	75-125			
Lithium	0.108	0.0500	0.0015	mg/L	0.10000	0.0123	96	75-125			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 27, 2017

Report No.: AAJ0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100507 - EPA 3005A											
Matrix Spike Dup (7100507-MSD1)		**Source: AAJ0387-02**			Prepared: 10/18/17 Analyzed: 10/19/17						
Antimony	0.105	0.0030	0.0006	mg/L	0.10000	ND	105	75-125	4	20	
Arsenic	0.100	0.0050	0.0005	mg/L	0.10000	0.0007	99	75-125	0.6	20	
Barium	0.214	0.0100	0.0004	mg/L	0.10000	0.112	102	75-125	1	20	
Beryllium	0.0988	0.0030	0.00009	mg/L	0.10000	ND	99	75-125	4	20	
Cadmium	0.102	0.0010	0.0001	mg/L	0.10000	ND	102	75-125	4	20	
Chromium	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125	0.2	20	
Cobalt	0.101	0.0100	0.0003	mg/L	0.10000	0.0017	99	75-125	2	20	
Copper	0.0984	0.0250	0.0003	mg/L	0.10000	ND	98	75-125	3	20	
Lead	0.102	0.0050	0.00007	mg/L	0.10000	ND	102	75-125	0.3	20	
Nickel	0.102	0.0100	0.0005	mg/L	0.10000	0.0013	100	75-125	5	20	
Selenium	0.105	0.0100	0.0018	mg/L	0.10000	ND	105	75-125	0.9	20	
Silver	0.0991	0.0100	0.0002	mg/L	0.10000	ND	99	75-125	2	20	
Thallium	0.103	0.0010	0.00005	mg/L	0.10000	ND	103	75-125	0.2	20	
Vanadium	0.101	0.0100	0.0012	mg/L	0.10000	0.0018	99	75-125	0.0007	20	
Zinc	0.102	0.0100	0.0012	mg/L	0.10000	ND	102	75-125	2	20	
Lithium	0.107	0.0500	0.0015	mg/L	0.10000	0.0123	95	75-125	0.4	20	
Post Spike (7100507-PS1)		**Source: AAJ0387-02**			Prepared: 10/18/17 Analyzed: 10/19/17						
Antimony	99.2			ug/L	100.00	0.0789	99	80-120			
Arsenic	99.5			ug/L	100.00	0.670	99	80-120			
Barium	217			ug/L	100.00	112	105	80-120			
Beryllium	100			ug/L	100.00	0.0097	100	80-120			
Cadmium	99.9			ug/L	100.00	0.0338	100	80-120			
Chromium	101			ug/L	100.00	0.101	100	80-120			
Cobalt	97.4			ug/L	100.00	1.70	96	80-120			
Copper	98.1			ug/L	100.00	0.0651	98	80-120			
Lead	101			ug/L	100.00	0.0115	101	80-120			
Nickel	98.6			ug/L	100.00	1.30	97	80-120			
Selenium	107			ug/L	100.00	-0.0424	107	80-120			
Silver	103			ug/L	100.00	-0.0009	103	80-120			
Thallium	104			ug/L	100.00	0.0058	104	80-120			
Vanadium	107			ug/L	100.00	1.77	105	80-120			
Zinc	99.8			ug/L	100.00	0.773	99	80-120			
Lithium	106			ug/L	100.00	12.3	94	80-120			

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Attention: Mr. Joju Abraham

October 27, 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.

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: _____ OF _____

CLIENT NAME: Georgia Power

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

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

PROJECT NAME/STATE: Plant Yates Phase II Facilities
PROJECT #: 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
					CONTAINER TYPE:		P	P	P	
					PRESERVATION:		3	7	3	
10-10-17	1055	GW		✓	YGWA-47	4	1	1	2	1
10-10-17	1415	GW		✓	YGWC-44	4	1	1	2	2
10-10-17	1240	GW		✓	YGWC-45	4	1	1	2	3
10-10-17	1505	W		✓	EB-1-10-10-17	4	1	1	2	4
10-11-17	1140	GW		✓	YGWC-46	4	1	1	2	5
10-11-17	1325	GW		✓	YGWC-49	4	1	1	2	6
10-11-17	—	GW		✓	DUP-1	4	1	1	2	7

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: Chris Parker (ACC) — DATE/TIME: 10-11-17 1630
RELINQUISHED BY: C Parker — DATE/TIME: 10-11-17 1725
RECEIVED BY: — DATE/TIME:
RELINQUISHED BY: — DATE/TIME:
RECEIVED BY LAB: Yolakman — DATE/TIME: 10/11/17 1725
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

Packed: No NA — Ice: Yes No NA — Temperature: Min: 4.3 Max:
Custody Seal: Intact Broken Not Present — # of Coolers — Cooler ID:

FOR LAB USE ONLY
LAB #: AAJ0387
Entered into LIMS: MB
Tracking #:

Plant Yates COC Phase II

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # AAJ0387

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: 1R-4 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.3 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 10/11/17 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)

PACE ANALYTICAL SERVICES, LLC.

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

LOG-IN CHECKLIST

Printed: 10/13/2017 3:37:27PM

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 10/11/17 17:25

Work Order: AAJ0387
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 7 **#Containers:** 28

Minimum Temp(C): 4.3 **Maximum Temp(C):** 4.3 **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 26, 2017

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: AAJ0387 Plant Yates
Pace Project No.: 30232908

Dear Mr. Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 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: AAJ0387 Plant Yates
Pace Project No.: 30232908

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: AAJ0387 Plant Yates
Pace Project No.: 30232908

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30232908001	**YGWA-47**	Water	10/10/17 10:55	10/13/17 09:50
30232908002	**YGWC-44**	Water	10/10/17 14:15	10/13/17 09:50
30232908003	**YGWC-45**	Water	10/10/17 12:40	10/13/17 09:50
30232908004	**EB-1-10-10-17**	Water	10/10/17 15:05	10/13/17 09:50
30232908005	**YGWC-46**	Water	10/11/17 11:40	10/13/17 09:50
30232908006	**YGWC-49**	Water	10/11/17 13:25	10/13/17 09:50
30232908007	**Dup-1**	Water	10/11/17 00:00	10/13/17 09:50

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: AAJ0387 Plant Yates
Pace Project No.: 30232908

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30232908001	**YGWA-47**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908002	**YGWC-44**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908003	**YGWC-45**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908004	**EB-1-10-10-17**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908005	**YGWC-46**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908006	**YGWC-49**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908007	**Dup-1**	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAJ0387 Plant Yates
Pace Project No.: 30232908

Sample: YGWA-47 **Lab ID: 30232908001** Collected: 10/10/17 10:55 Received: 10/13/17 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.350 ± 0.226 (0.315) C:89% T:NA**	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228	EPA 9320	**0.299 ± 0.335 (0.696) C:72% T:98%**	pCi/L	10/20/17 12:21	15262-20-1	
Total Radium	Total Radium Calculation	**0.649 ± 0.561 (1.01)**	pCi/L	10/23/17 12:49	7440-14-4	

Sample: YGWC-44 **Lab ID: 30232908002** Collected: 10/10/17 14:15 Received: 10/13/17 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.676 ± 0.304 (0.311) C:89% T:NA**	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228	EPA 9320	**0.751 ± 0.451 (0.832) C:74% T:83%**	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium	Total Radium Calculation	**1.43 ± 0.755 (1.14)**	pCi/L	10/23/17 12:49	7440-14-4	

Sample: YGWC-45 **Lab ID: 30232908003** Collected: 10/10/17 12:40 Received: 10/13/17 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**1.03 ± 0.390 (0.350) C:86% T:NA**	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228	EPA 9320	**0.443 ± 0.385 (0.772) C:66% T:97%**	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium	Total Radium Calculation	**1.47 ± 0.775 (1.12)**	pCi/L	10/23/17 12:49	7440-14-4	

Sample: EB-1-10-10-17 **Lab ID: 30232908004** Collected: 10/10/17 15:05 Received: 10/13/17 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.142 ± 0.211 (0.458) C:78% T:NA**	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228	EPA 9320	**1.44 ± 0.609 (1.04) C:74% T:84%**	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium	Total Radium Calculation	**1.58 ± 0.820 (1.50)**	pCi/L	10/23/17 12:49	7440-14-4	

Sample: YGWC-46 **Lab ID: 30232908005** Collected: 10/11/17 11:40 Received: 10/13/17 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.645 ± 0.314 (0.377) C:83% T:NA**	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228	EPA 9320	**0.211 ± 0.393 (0.852) C:68% T:89%**	pCi/L	10/20/17 12:22	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: AAJ0387 Plant Yates
Pace Project No.: 30232908

Sample: YGWC-46 **Lab ID: 30232908005** Collected: 10/11/17 11:40 Received: 10/13/17 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.856 ± 0.707 (1.23)**	pCi/L	10/23/17 12:49	7440-14-4	

Sample: YGWC-49 **Lab ID: 30232908006** Collected: 10/11/17 13:25 Received: 10/13/17 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.801 ± 0.352 (0.419) C:89% T:NA**	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228	EPA 9320	**0.605 ± 0.404 (0.764) C:71% T:86%**	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium	Total Radium Calculation	**1.41 ± 0.756 (1.18)**	pCi/L	10/23/17 12:49	7440-14-4	

Sample: Dup-1 **Lab ID: 30232908007** Collected: 10/11/17 00:00 Received: 10/13/17 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.500 ± 0.293 (0.426) C:83% T:NA**	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228	EPA 9320	**0.315 ± 0.453 (0.964) C:65% T:77%**	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium	Total Radium Calculation	**0.815 ± 0.746 (1.39)**	pCi/L	10/23/17 11:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0387 Plant Yates
Pace Project No.: 30232908

QC Batch: 275694 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30232908001, 30232908002, 30232908003, 30232908004, 30232908005, 30232908006, 30232908007

METHOD BLANK: 1355356 Matrix: Water
Associated Lab Samples: 30232908001, 30232908002, 30232908003, 30232908004, 30232908005, 30232908006, 30232908007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.573 ± 0.385 (0.731) C:79% T:78%	pCi/L	10/20/17 12:21	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0387 Plant Yates
Pace Project No.: 30232908

QC Batch: 275693 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30232908001, 30232908002, 30232908003, 30232908004, 30232908005, 30232908006, 30232908007

METHOD BLANK: 1355355 Matrix: Water
Associated Lab Samples: 30232908001, 30232908002, 30232908003, 30232908004, 30232908005, 30232908006, 30232908007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.249 ± 0.195 (0.302) C:89% T:NA	pCi/L	10/19/17 08:27	

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: AAJ0387 Plant Yates
Pace Project No.: 30232908

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: AAJ0387 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 11/6/2017

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

Requested Analysis

WO#:30232908

30232908

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Radium 226, 228, Total	LAB USE ONLY
1	YGWA-47	G	10/10/2017 10:55	AAJ0387-01	GW	2	X	001
2	YGWC-44	G	10/10/2017 14:15	AAJ0387-02	GW	2	X	002
3	YGWC-45	G	10/10/2017 12:40	AAJ0387-03	GW	2	X	003
4	EB-1-10-10-17	G	10/10/2017 15:05	AAJ0387-04	W	2	X	004
5	YGWC-46	G	10/11/2017 11:40	AAJ0387-05	GW	2	X	005
6	YGWC-49	G	10/11/2017 13:25	AAJ0387-06	GW	2	X	006
7	Dup-1	G	10/11/2017 0:00	AAJ0387-07	GW	2	X	007
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RAHMAN	10/12/17	[signature]	10-13-17 0950	
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.

30232908

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # AAJ2387

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: 4.3 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/11/17 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)

F-ALLC003rev.3 11September2006

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: Pace GA   Project # 30232908

Label ML
LIMS Login [illegible]

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

Tracking #: Foln

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 10-13-17

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:	X			5.
-Includes date/time/ID Matrix: WT				
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.
Hex Cr Aqueous Compliance/NPDES sample field filtered			X	13.
Organic Samples checked for dechlorination:			X	14.
Filtered volume received for Dissolved tests			X	15.
All containers have been checked for preservation.	X			16. 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 ML; Date/time of preservation; Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	17.
Trip Blank Present:		X		18.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: ML Date: 10-13-17

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.

J:\QAQC\Master\Document Management\Sample Mgt\Sample Condition Upon Receipt Pittsburgh (C056-6 18Aug2017)

Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: VAL
Date: 10/18/2017
Worklist: 38279
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1355356
MB concentration:	0.573
M/B Counting Uncertainty:	0.371
MB MDC:	0.731
MB Numerical Performance Indicator:	3.03
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)? LCS38279	N LCSD38279
Count Date:	10/20/2017	
Spike I.D.:	17-033	
Spike Concentration (pCi/mL):	23.228	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.815	
Target Conc. (pCi/L, g, F):	5.699	
Uncertainty (Calculated):	0.410	
Result (pCi/L, g, F):	5.705	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.782	
Numerical Performance Indicator:	0.01	
Percent Recovery:	100.11%	
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		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	30233110002	
Duplicate Sample I.D.	30233110002DUP	
Sample Result (pCi/L, g, F):	0.625	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.369	
Sample Duplicate Result (pCi/L, g, F):	1.022	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.470	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.302	30233110002
Duplicate RPD:	48.17%	30233110002DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail*** OL	

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.

10/26/17

Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: JC2
Date: 10/18/2017
Worklist: 38278
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1355355
MB concentration:	0.249
M/B Counting Uncertainty:	0.191
MB MDC:	0.302
MB Numerical Performance Indicator:	2.55
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS38278	LCSD38278
Count Date:	10/19/2017	10/19/2017
Spike I.D.:	17-030	17-030
Spike Concentration (pCi/mL):	80.189	80.189
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.508	0.510
Target Conc. (pCi/L, g, F):	15.794	15.727
Uncertainty (Calculated):	1.455	1.449
Result (pCi/L, g, F):	13.094	12.980
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.218	1.233
Numerical Performance Indicator:	-2.79	-2.83
Percent Recovery:	82.91%	82.54%
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.:	LCS38278
Duplicate Sample I.D.	LCSD38278
Sample Result (pCi/L, g, F):	13.094
Sample Result Counting Uncertainty (pCi/L, g, F):	1.218
Sample Duplicate Result (pCi/L, g, F):	12.980
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.233
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	0.129
Duplicate RPD:	0.87%
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:

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 30, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Phase II
Pace Project No.: 263585

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on April 04, 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.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Yates Phase II
Pace Project No.: 263585

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 Phase II
Pace Project No.: 263585

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263585001	**YGWA-47**	Water	04/02/18 14:25	04/04/18 16:45
263585002	**YGWA-47**	Water	04/02/18 14:25	04/04/18 16:45
263585003	**YGWC-45**	Water	04/03/18 14:05	04/04/18 16:45
263585004	**YGWC-45**	Water	04/03/18 14:05	04/04/18 16:45
263585005	**YGWC-42**	Water	04/04/18 11:45	04/04/18 16:45
263585006	**YGWC-42**	Water	04/04/18 11:45	04/04/18 16:45
263585007	**YGWC-43**	Water	04/04/18 09:40	04/04/18 16:45
263585008	**YGWC-43**	Water	04/04/18 09:40	04/04/18 16:45
263585009	**YGWC-44**	Water	04/04/18 12:05	04/04/18 16:45
263585010	**YGWC-44**	Water	04/04/18 12:05	04/04/18 16:45
263585011	**YGWC-46**	Water	04/04/18 15:55	04/04/18 16:45
263585012	**YGWC-46**	Water	04/04/18 15:55	04/04/18 16:45
263585013	**YGWC-49**	Water	04/04/18 12:50	04/04/18 16:45
263585014	**YGWC-49**	Water	04/04/18 12:50	04/04/18 16:45
263585015	**EB-6-4-4-18**	Water	04/04/18 11:30	04/04/18 16:45
263585016	**EB-6-4-4-18**	Water	04/04/18 11:30	04/04/18 16:45
263585017	**FB-6-4-4-18**	Water	04/04/18 12:30	04/04/18 16:45
263585018	**FB-6-4-4-18**	Water	04/04/18 12:30	04/04/18 16:45
263585019	**Dup-6**	Water	04/04/18 00:00	04/04/18 16:45
263585020	**Dup-6**	Water	04/04/18 00:00	04/04/18 16:45

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 263585

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263585001	**YGWA-47**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	MVC	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585002	**YGWA-47**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585003	**YGWC-45**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585004	**YGWC-45**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585005	**YGWC-42**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585006	**YGWC-42**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585007	**YGWC-43**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585008	**YGWC-43**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585009	**YGWC-44**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585010	**YGWC-44**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585011	**YGWC-46**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 263585

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585012	**YGWC-46**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585013	**YGWC-49**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585014	**YGWC-49**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585015	**EB-6-4-4-18**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585016	**EB-6-4-4-18**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585017	**FB-6-4-4-18**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	MWB	3	PASI-GA
263585018	**FB-6-4-4-18**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585019	**Dup-6**	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	MWB, RLC	3	PASI-GA
263585020	**Dup-6**	EPA 9315	LAL	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 Phase II
Pace Project No.: 263585

Sample: YGWA-47 **Lab ID: 263585001** Collected: 04/02/18 14:25 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 16:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 16:19	7440-38-2	
Barium	**0.022**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 16:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 16:19	7440-41-7	
Boron	**0.013J**	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 16:19	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 16:19	7440-43-9	
Calcium	ND	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 16:24	7440-70-2	D3,M6
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 16:19	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 16:19	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 16:19	7439-92-1	
Lithium	**0.0045J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 16:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 16:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 16:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 16:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:13	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**192**	mg/L	25.0	25.0	1		04/06/18 21:30		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.8**	mg/L	0.25	0.024	1		04/11/18 13:10	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 13:10	16984-48-8	
Sulfate	**88.8**	mg/L	10.0	0.17	10		04/13/18 13:51	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 Phase II
Pace Project No.: 263585

Sample: YGWC-45 **Lab ID: 263585003** Collected: 04/03/18 14:05 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 17:13	7440-36-0	
Arsenic	**0.00061J**	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:13	7440-38-2	
Barium	**0.068**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:13	7440-41-7	
Boron	**0.35**	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 17:13	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:13	7440-43-9	
Calcium	**50.6**	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 17:19	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:13	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:13	7439-92-1	
Lithium	**0.014J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:13	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:15	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**418**	mg/L	25.0	25.0	1		04/08/18 16:46		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.6**	mg/L	0.25	0.024	1		04/11/18 14:14	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 14:14	16984-48-8	
Sulfate	**183**	mg/L	10.0	0.17	10		04/13/18 14:14	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 Phase II
Pace Project No.: 263585

Sample: YGWC-42 **Lab ID: 263585005** Collected: 04/04/18 11:45 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 17:25	7440-36-0	
Arsenic	**0.0023J**	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:25	7440-38-2	
Barium	**0.041**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:25	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:25	7440-41-7	
Boron	**22.7**	mg/L	2.0	0.20	50	04/06/18 09:09	04/10/18 17:31	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:25	7440-43-9	
Calcium	**137**	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 17:31	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:25	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:25	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:25	7439-92-1	
Lithium	**0.037J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:25	7439-98-7	
Selenium	**0.055**	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:18	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1520**	mg/L	50.0	50.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.7**	mg/L	0.25	0.024	1		04/11/18 14:35	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 14:35	16984-48-8	
Sulfate	**1020**	mg/L	50.0	0.85	50		04/13/18 14:36	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 Phase II
Pace Project No.: 263585

Sample: YGWC-43 **Lab ID: 263585007** Collected: 04/04/18 09:40 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 17:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:36	7440-38-2	
Barium	**0.024**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:36	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:36	7440-41-7	
Boron	**1.2**	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 17:36	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:36	7440-43-9	
Calcium	**8.6**	mg/L	2.5	0.069	5	04/06/18 09:09	04/11/18 16:40	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:36	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:36	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:36	7439-92-1	
Lithium	**0.016J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:36	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:32	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**292**	mg/L	25.0	25.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**1.8**	mg/L	0.25	0.024	1		04/11/18 14:56	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 14:56	16984-48-8	
Sulfate	**160**	mg/L	10.0	0.17	10		04/13/18 14:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-44 **Lab ID: 263585009** Collected: 04/04/18 12:05 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 17:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:48	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:48	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:48	7440-41-7	
Boron	**0.66**	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 17:48	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:48	7440-43-9	
Calcium	**30.1**	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 17:54	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:48	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:48	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:48	7439-92-1	
Lithium	**0.014J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:35	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**313**	mg/L	25.0	25.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**13.4**	mg/L	0.25	0.024	1		04/11/18 15:18	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 15:18	16984-48-8	
Sulfate	**137**	mg/L	10.0	0.17	10		04/13/18 15:21	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-46 **Lab ID: 263585011** Collected: 04/04/18 15:55 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 17:59	7440-36-0	
Arsenic	**0.00087J**	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:59	7440-38-2	
Barium	**0.025**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:59	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:59	7440-41-7	
Boron	**1.2**	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 17:59	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:59	7440-43-9	
Calcium	**51.9**	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 18:05	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:59	7440-47-3	
Cobalt	**0.025**	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:59	7439-92-1	
Lithium	**0.012J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:59	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:59	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:37	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1470**	mg/L	50.0	50.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**26.6**	mg/L	0.25	0.024	1		04/11/18 15:39	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 15:39	16984-48-8	
Sulfate	**430**	mg/L	20.0	0.34	20		04/13/18 15:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-49 **Lab ID: 263585013** Collected: 04/04/18 12:50 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 18:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 18:36	7440-38-2	
Barium	**0.074**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 18:36	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 18:36	7440-41-7	
Boron	**0.0041J**	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 18:36	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 18:36	7440-43-9	
Calcium	ND	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 18:42	7440-70-2	D3
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 18:36	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 18:36	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 18:36	7439-92-1	
Lithium	**0.0039J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 18:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 18:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 18:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 18:36	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:39	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**174**	mg/L	25.0	25.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.3**	mg/L	0.25	0.024	1		04/11/18 16:00	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 16:00	16984-48-8	
Sulfate	**76.5**	mg/L	10.0	0.17	10		04/13/18 16:05	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 Phase II
Pace Project No.: 263585

Sample: EB-6-4-4-18 **Lab ID: 263585015** Collected: 04/04/18 11:30 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 18:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 18:48	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 18:48	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 18:48	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 18:48	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 18:48	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	04/06/18 09:09	04/10/18 18:48	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 18:48	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 18:48	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 18:48	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 18:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 18:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 18:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 18:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:42	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	0.25	0.024	1		04/11/18 16:22	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 16:22	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		04/11/18 16:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: FB-6-4-4-18 **Lab ID: 263585017** Collected: 04/04/18 12:30 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 18:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 18:53	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 18:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 18:53	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 18:53	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 18:53	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	04/06/18 09:09	04/10/18 18:53	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 18:53	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 18:53	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 18:53	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 18:53	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 18:53	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 18:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 18:53	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:44	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	ND	mg/L	0.25	0.024	1		04/11/18 21:03	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 21:03	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		04/11/18 21:03	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: Dup-6 **Lab ID: 263585019** Collected: 04/04/18 00:00 Received: 04/04/18 16:45 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	04/06/18 09:09	04/10/18 18:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 18:59	7440-38-2	
Barium	**0.024**	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 18:59	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 18:59	7440-41-7	
Boron	**1.2**	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 18:59	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 18:59	7440-43-9	
Calcium	**8.3**	mg/L	2.5	0.069	5	04/06/18 09:09	04/11/18 16:46	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 18:59	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 18:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 18:59	7439-92-1	
Lithium	**0.016J**	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 18:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 18:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 18:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 18:59	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:47	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**303**	mg/L	25.0	25.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**1.4**	mg/L	0.25	0.024	1		04/11/18 21:24	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 21:24	16984-48-8	
Sulfate	**153**	mg/L	10.0	0.17	10		04/13/18 16:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 4044 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

METHOD BLANK: 20252 Matrix: Water
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/10/18 14:59	

LABORATORY CONTROL SAMPLE: 20253

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0022	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20254 20255

Parameter	Units	263498001 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	0.0025	89	95	75-125	6	20	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 3855 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

METHOD BLANK: 19576 Matrix: Water
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/10/18 16:07	
Arsenic	mg/L	ND	0.0050	0.00057	04/10/18 16:07	
Barium	mg/L	ND	0.010	0.00078	04/10/18 16:07	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/18 16:07	
Boron	mg/L	ND	0.040	0.0039	04/10/18 16:07	
Cadmium	mg/L	ND	0.0010	0.000093	04/10/18 16:07	
Calcium	mg/L	ND	0.50	0.014	04/10/18 16:07	
Chromium	mg/L	ND	0.010	0.0016	04/10/18 16:07	
Cobalt	mg/L	ND	0.010	0.00052	04/10/18 16:07	
Lead	mg/L	ND	0.0050	0.00027	04/10/18 16:07	
Lithium	mg/L	ND	0.050	0.00097	04/10/18 16:07	
Molybdenum	mg/L	ND	0.010	0.0019	04/10/18 16:07	
Selenium	mg/L	ND	0.010	0.0014	04/10/18 16:07	
Thallium	mg/L	ND	0.0010	0.00014	04/10/18 16:07	

LABORATORY CONTROL SAMPLE: 19577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.099	99	80-120	
Arsenic	mg/L	.1	0.099	99	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.11	106	80-120	
Boron	mg/L	1	1.1	107	80-120	
Cadmium	mg/L	.1	0.098	98	80-120	
Calcium	mg/L	1	1.0	101	80-120	
Chromium	mg/L	.1	0.10	102	80-120	
Cobalt	mg/L	.1	0.10	102	80-120	
Lead	mg/L	.1	0.099	99	80-120	
Lithium	mg/L	.1	0.11	107	80-120	
Molybdenum	mg/L	.1	0.098	98	80-120	
Selenium	mg/L	.1	0.096	96	80-120	
Thallium	mg/L	.1	0.099	99	80-120	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19578 19579

Parameter	Units	263585001 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	0.10	0.11	102	106	75-125	4	20	
Arsenic	mg/L	ND	.1	.1	0.10	0.11	102	106	75-125	5	20	
Barium	mg/L	0.022	.1	.1	0.12	0.13	98	103	75-125	4	20	
Beryllium	mg/L	ND	.1	.1	0.10	0.11	103	112	75-125	8	20	
Boron	mg/L	0.013J	1	1	1.0	1.1	100	109	75-125	8	20	
Cadmium	mg/L	ND	.1	.1	0.098	0.11	98	107	75-125	8	20	
Calcium	mg/L	ND	1	1	12.6J	13.9J	54	178	75-125	9	20	M6
Chromium	mg/L	ND	.1	.1	0.10	0.11	104	110	75-125	6	20	
Cobalt	mg/L	ND	.1	.1	0.11	0.11	103	107	75-125	4	20	
Lead	mg/L	ND	.1	.1	0.10	0.11	101	105	75-125	4	20	
Lithium	mg/L	0.0045J	.1	.1	0.10	0.11	100	107	75-125	7	20	
Molybdenum	mg/L	ND	.1	.1	0.10	0.11	100	106	75-125	5	20	
Selenium	mg/L	ND	.1	.1	0.10	0.11	101	107	75-125	6	20	
Thallium	mg/L	ND	.1	.1	0.10	0.11	100	105	75-125	5	20	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 405309 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 263585001

METHOD BLANK: 2248515 Matrix: Water
Associated Lab Samples: 263585001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/06/18 21:30	

LABORATORY CONTROL SAMPLE: 2248516

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	270	108	90-110	

SAMPLE DUPLICATE: 2248517

Parameter	Units	263579001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	34.0	39.0	14	5	D6

SAMPLE DUPLICATE: 2248518

Parameter	Units	92379425011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	257	249	3	5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 405425 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 263585003

METHOD BLANK: 2249021 Matrix: Water
Associated Lab Samples: 263585003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/08/18 16:46	

LABORATORY CONTROL SAMPLE: 2249022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	260	104	90-110	

SAMPLE DUPLICATE: 2249023

Parameter	Units	263579017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	105	113	7	5	D6

SAMPLE DUPLICATE: 2249024

Parameter	Units	263580011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	660	644	2	5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 405558 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

METHOD BLANK: 2249847 Matrix: Water
Associated Lab Samples: 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/10/18 18:23	

LABORATORY CONTROL SAMPLE: 2249848

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	232	93	90-110	

SAMPLE DUPLICATE: 2249849

Parameter	Units	92379682010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	46.0	37.0	22	5	D6

SAMPLE DUPLICATE: 2249850

Parameter	Units	263585019 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	303	298	2	5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 4157 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

METHOD BLANK: 20683 Matrix: Water
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	04/11/18 11:46	
Fluoride	mg/L	ND	0.30	0.029	04/11/18 11:46	
Sulfate	mg/L	ND	1.0	0.017	04/11/18 11:46	

LABORATORY CONTROL SAMPLE: 20684

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.7	97	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: 20685 20686

Parameter	Units	263584001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.8	1	1	14.3	14.3	944	942	90-110	0	15	M1
Fluoride	mg/L	ND	1	1	9.9	9.9	975	973	90-110	0	15	M1
Sulfate	mg/L	88.8	1	1	84.8	84.9	-399	-393	90-110	0	15	E

MATRIX SPIKE SAMPLE: 20687

Parameter	Units	263584002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.6	10	13.3	87	90-110	
Fluoride	mg/L	ND	10	9.1	89	90-110	
Sulfate	mg/L	183	10	146	-372	90-110	E

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWA-47 **Lab ID: 263585002** Collected: 04/02/18 14:25 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.459 ± 0.213 (0.316) C:79% T:NA**	pCi/L	04/19/18 08:39	13982-63-3	
Radium-228	EPA 9320	**0.0533 ± 0.287 (0.658) C:73% T:96%**	pCi/L	04/20/18 15:15	15262-20-1	
Total Radium	Total Radium Calculation	**0.512 ± 0.500 (0.974)**	pCi/L	04/26/18 13:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-45 **Lab ID: 263585004** Collected: 04/03/18 14:05 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.850 ± 0.266 (0.265) C:84% T:NA**	pCi/L	04/19/18 08:39	13982-63-3	
Radium-228	EPA 9320	**0.676 ± 0.435 (0.824) C:76% T:78%**	pCi/L	04/20/18 15:15	15262-20-1	
Total Radium	Total Radium Calculation	**1.53 ± 0.701 (1.09)**	pCi/L	04/26/18 13:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-42 **Lab ID: 263585006** Collected: 04/04/18 11:45 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.886 ± 0.244 (0.141) C:95% T:NA**	pCi/L	04/19/18 10:15	13982-63-3	
Radium-228	EPA 9320	**1.01 ± 0.458 (0.741) C:71% T:78%**	pCi/L	04/20/18 15:15	15262-20-1	
Total Radium	Total Radium Calculation	**1.90 ± 0.702 (0.882)**	pCi/L	04/26/18 13:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-43 **Lab ID: 263585008** Collected: 04/04/18 09:40 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**1.24 ± 0.308 (0.157) C:93% T:NA**	pCi/L	04/19/18 10:15	13982-63-3	
Radium-228	EPA 9320	**0.467 ± 0.325 (0.611) C:81% T:76%**	pCi/L	04/20/18 15:15	15262-20-1	
Total Radium	Total Radium Calculation	**1.71 ± 0.633 (0.768)**	pCi/L	04/26/18 13:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-44 **Lab ID: 263585010** Collected: 04/04/18 12:05 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.194 ± 0.182 (0.363) C:91% T:NA**	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	**0.131 ± 0.331 (0.740) C:77% T:79%**	pCi/L	04/25/18 11:24	15262-20-1	
Total Radium	Total Radium Calculation	**0.325 ± 0.516 (1.10)**	pCi/L	04/26/18 13:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-46 **Lab ID: 263585012** Collected: 04/04/18 15:55 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.515 ± 0.231 (0.275) C:84% T:NA**	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	**0.459 ± 0.355 (0.697) C:81% T:80%**	pCi/L	04/25/18 11:24	15262-20-1	
Total Radium	Total Radium Calculation	**0.974 ± 0.586 (0.972)**	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-49 **Lab ID: 263585014** Collected: 04/04/18 12:50 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.216 ± 0.175 (0.316) C:82% T:NA**	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	**0.226 ± 0.322 (0.692) C:77% T:81%**	pCi/L	04/25/18 11:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.442 ± 0.497 (1.01)**	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: EB-6-4-4-18 **Lab ID: 263585016** Collected: 04/04/18 11:30 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.304 ± 0.203 (0.335) C:76% T:NA**	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	**0.786 ± 0.384 (0.627) C:82% T:71%**	pCi/L	04/25/18 11:28	15262-20-1	
Total Radium	Total Radium Calculation	**1.09 ± 0.587 (0.962)**	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: FB-6-4-4-18 **Lab ID: 263585018** Collected: 04/04/18 12:30 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.270 ± 0.170 (0.258) C:86% T:NA**	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	**0.254 ± 0.342 (0.730) C:77% T:78%**	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.524 ± 0.512 (0.988)**	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: Dup-6 **Lab ID: 263585020** Collected: 04/04/18 00:00 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**1.15 ± 0.356 (0.309) C:83% T:NA**	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	**0.537 ± 0.369 (0.712) C:81% T:83%**	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	**1.69 ± 0.725 (1.02)**	pCi/L	04/26/18 13:38	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 294198 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 263585010, 263585012, 263585014, 263585016, 263585018, 263585020

METHOD BLANK: 1440645 Matrix: Water
Associated Lab Samples: 263585010, 263585012, 263585014, 263585016, 263585018, 263585020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0414 ± 0.317 (0.731) C:80% T:78%	pCi/L	04/25/18 11:24	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 294195 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 263585010, 263585012, 263585014, 263585016, 263585018, 263585020

METHOD BLANK: 1440640 Matrix: Water
Associated Lab Samples: 263585010, 263585012, 263585014, 263585016, 263585018, 263585020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.202 ± 0.146 (0.231) C:87% T:NA	pCi/L	04/19/18 08:37	

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 - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 294196 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 263585002, 263585004, 263585006, 263585008

METHOD BLANK: 1440643 Matrix: Water
Associated Lab Samples: 263585002, 263585004, 263585006, 263585008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0447 ± 0.264 (0.636) C:75% T:85%	pCi/L	04/20/18 11:37	

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 - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 294194 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 263585002, 263585004, 263585006, 263585008

METHOD BLANK: 1440635 Matrix: Water
Associated Lab Samples: 263585002, 263585004, 263585006, 263585008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.260 ± 0.105 (0.126) C:91% T:NA	pCi/L	04/18/18 19:04	

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

QUALIFIERS

Project: Plant Yates Phase II
Pace Project No.: 263585

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.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
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 Phase II
Pace Project No.: 263585

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263585001	YGWA-47	EPA 3005A	3855	EPA 6020B	4097
263585003	YGWC-45	EPA 3005A	3855	EPA 6020B	4097
263585005	YGWC-42	EPA 3005A	3855	EPA 6020B	4097
263585007	YGWC-43	EPA 3005A	3855	EPA 6020B	4097
263585009	YGWC-44	EPA 3005A	3855	EPA 6020B	4097
263585011	YGWC-46	EPA 3005A	3855	EPA 6020B	4097
263585013	YGWC-49	EPA 3005A	3855	EPA 6020B	4097
263585015	EB-6-4-4-18	EPA 3005A	3855	EPA 6020B	4097
263585017	FB-6-4-4-18	EPA 3005A	3855	EPA 6020B	4097
263585019	Dup-6	EPA 3005A	3855	EPA 6020B	4097
263585001	YGWA-47	EPA 7470A	4044	EPA 7470A	4091
263585003	YGWC-45	EPA 7470A	4044	EPA 7470A	4091
263585005	YGWC-42	EPA 7470A	4044	EPA 7470A	4091
263585007	YGWC-43	EPA 7470A	4044	EPA 7470A	4091
263585009	YGWC-44	EPA 7470A	4044	EPA 7470A	4091
263585011	YGWC-46	EPA 7470A	4044	EPA 7470A	4091
263585013	YGWC-49	EPA 7470A	4044	EPA 7470A	4091
263585015	EB-6-4-4-18	EPA 7470A	4044	EPA 7470A	4091
263585017	FB-6-4-4-18	EPA 7470A	4044	EPA 7470A	4091
263585019	Dup-6	EPA 7470A	4044	EPA 7470A	4091
263585002	YGWA-47	EPA 9315	294194		
263585004	YGWC-45	EPA 9315	294194		
263585006	YGWC-42	EPA 9315	294194		
263585008	YGWC-43	EPA 9315	294194		
263585010	YGWC-44	EPA 9315	294195		
263585012	YGWC-46	EPA 9315	294195		
263585014	YGWC-49	EPA 9315	294195		
263585016	EB-6-4-4-18	EPA 9315	294195		
263585018	FB-6-4-4-18	EPA 9315	294195		
263585020	Dup-6	EPA 9315	294195		
263585002	YGWA-47	EPA 9320	294196		
263585004	YGWC-45	EPA 9320	294196		
263585006	YGWC-42	EPA 9320	294196		
263585008	YGWC-43	EPA 9320	294196		
263585010	YGWC-44	EPA 9320	294198		
263585012	YGWC-46	EPA 9320	294198		
263585014	YGWC-49	EPA 9320	294198		
263585016	EB-6-4-4-18	EPA 9320	294198		
263585018	FB-6-4-4-18	EPA 9320	294198		
263585020	Dup-6	EPA 9320	294198		
263585002	YGWA-47	Total Radium Calculation	296141		
263585004	YGWC-45	Total Radium Calculation	296141		
263585006	YGWC-42	Total Radium Calculation	296141		
263585008	YGWC-43	Total Radium Calculation	296141		
263585010	YGWC-44	Total Radium Calculation	296147		

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 263585

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263585012	**YGWC-46**	Total Radium Calculation	296147		
263585014	**YGWC-49**	Total Radium Calculation	296147		
263585016	**EB-6-4-4-18**	Total Radium Calculation	296147		
263585018	**FB-6-4-4-18**	Total Radium Calculation	296147		
263585020	**Dup-6**	Total Radium Calculation	296147		
263585001	**YGWA-47**	SM 2540C	405309		
263585003	**YGWC-45**	SM 2540C	405425		
263585005	**YGWC-42**	SM 2540C	405558		
263585007	**YGWC-43**	SM 2540C	405558		
263585009	**YGWC-44**	SM 2540C	405558		
263585011	**YGWC-46**	SM 2540C	405558		
263585013	**YGWC-49**	SM 2540C	405558		
263585015	**EB-6-4-4-18**	SM 2540C	405558		
263585017	**FB-6-4-4-18**	SM 2540C	405558		
263585019	**Dup-6**	SM 2540C	405558		
263585001	**YGWA-47**	EPA 300.0	4157		
263585003	**YGWC-45**	EPA 300.0	4157		
263585005	**YGWC-42**	EPA 300.0	4157		
263585007	**YGWC-43**	EPA 300.0	4157		
263585009	**YGWC-44**	EPA 300.0	4157		
263585011	**YGWC-46**	EPA 300.0	4157		
263585013	**YGWC-49**	EPA 300.0	4157		
263585015	**EB-6-4-4-18**	EPA 300.0	4157		
263585017	**FB-6-4-4-18**	EPA 300.0	4157		
263585019	**Dup-6**	EPA 300.0	4157		

CHAIN OF CUSTODY RECORD

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

CLIENT NAME: Georgia Power

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

REPORT TO: Joju Abraham
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com
PROJECT NAME/STATE: Plant Yates - Phase 2 Facility Wells
PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		P 3 Metals App. III & IV (EPA 6020/7470)	P 7 Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	P 3 Radium 226 & 228 (SW-846 9315/9320)	P						LAB ID NUMBER
4-2-18	1425	GW		X	YGWA-47	5		✓	✓	✓							
4-3-18	1405	GW		X	YGWC-45	5		✓	✓	✓							
4-4-18	1145	GW		X	YGWC-42	7		✓	✓	✓							
4-4-18	0940	GW		X	YGWC-43	5		✓	✓	✓							
4-4-18	1205	GW		X	YGWC-44	5		✓	✓	✓							
4-4-18	1555	GW		X	YGWC-46	5		✓	✓	✓							
4-4-18	1250	GW		X	YGWC-49	5		✓	✓	✓							
4-4-18	1130	W		X	EB-6-4-4-18	5		✓	✓	✓							
4-4-18	1230	W		X	FB-6-4-4-18	5		✓	✓	✓							
4-4-18	—	GW		X	DUP-6	5		✓	✓	✓							

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

WO# : 263585

263585

SAMPLED BY AND TITLE: C. Parker, J. Barnsford
DATE/TIME: 4-4-18 1500
RELINQUISHED BY:
DATE/TIME: 4-4-18 1645

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

RECEIVED BY LAB: M Zalman
DATE/TIME: 04/04/18 1645
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH Checked: Yes No NA
Ice: Yes No NA
Temperature: Min 0.1 Max
Custody Seal: Intact Broken Not Present
# of Coolers
Cooler ID:

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

APP III and IV

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO# : 263585

PM: BM **Due Date: 04/11/18**

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 0.1 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 4/4/18 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)

FALL-0003rev.3 11September2006

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

September 28, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Phase II
Pace Project No.: 269556

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 21, 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 Phase II
Pace Project No.: 269556

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 Phase II
Pace Project No.: 269556

Lab ID	Sample ID	Matrix	Date Collected	Date Received
269556001	**YGWA-47**	Water	09/19/18 10:35	09/21/18 09:30
269556002	**YGWC-42**	Water	09/20/18 12:30	09/21/18 09:30
269556003	**YGWC-43**	Water	09/20/18 10:55	09/21/18 09:30
269556004	**YGWC-44**	Water	09/19/18 13:15	09/21/18 09:30
269556005	**YGWC-45**	Water	09/19/18 14:50	09/21/18 09:30
269556006	**YGWC-46**	Water	09/19/18 12:00	09/21/18 09:30
269556007	**YGWC-49**	Water	09/20/18 13:55	09/21/18 09:30
269556008	**EB-1-9-20-18**	Water	09/20/18 09:55	09/21/18 09:30
269556009	**Dup-1**	Water	09/20/18 00:00	09/21/18 09:30
269556010	**FB-1-9-19-18**	Water	09/19/18 14:20	09/21/18 09:30

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 269556

Lab ID	Sample ID	Method	Analysts	Analytes Reported
269556001	YGWA-47	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556002	YGWC-42	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556003	YGWC-43	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556004	YGWC-44	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556005	YGWC-45	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556006	YGWC-46	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556007	YGWC-49	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556008	EB-1-9-20-18	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556009	Dup-1	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556010	FB-1-9-19-18	EPA 6020B	CSW	14

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 269556

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 Phase II
Pace Project No.: 269556

Sample: YGWA-47 **Lab ID: 269556001** Collected: 09/19/18 10:35 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 20:32	7440-36-0	
Arsenic	**0.00072J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 20:32	7440-38-2	B
Barium	**0.023**	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 20:32	7440-39-3	
Beryllium	**0.000057J**	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 20:32	7440-41-7	
Boron	**0.012J**	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 20:32	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 20:32	7440-43-9	
Calcium	**11.1J**	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 20:38	7440-70-2	D3,M6
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 20:32	7440-47-3	
Cobalt	**0.0036J**	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 20:32	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 20:32	7439-92-1	
Lithium	**0.0043J**	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 20:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 20:32	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 20:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 20:32	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000053J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:04	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**186**	mg/L	25.0	10.0	1		09/24/18 13:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.0**	mg/L	0.25	0.024	1		09/26/18 03:39	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 03:39	16984-48-8	
Sulfate	**75.0**	mg/L	10.0	0.17	10		09/26/18 13:44	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 Phase II
Pace Project No.: 269556

Sample: YGWC-42 **Lab ID: 269556002** Collected: 09/20/18 12:30 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 21:24	7440-36-0	
Arsenic	**0.0018J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 21:24	7440-38-2	B
Barium	**0.038**	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 21:24	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 21:24	7440-41-7	
Boron	**20.3**	mg/L	2.0	0.20	50	09/25/18 15:15	09/26/18 21:30	7440-42-8	
Cadmium	**0.00020J**	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 21:24	7440-43-9	
Calcium	**108**	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 21:30	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 21:24	7440-47-3	
Cobalt	**0.0030J**	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 21:24	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 21:24	7439-92-1	
Lithium	**0.049J**	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 21:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 21:24	7439-98-7	
Selenium	**0.041**	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 21:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 21:24	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000048J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:06	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**1240**	mg/L	25.0	10.0	1		09/24/18 13:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.8**	mg/L	0.25	0.024	1		09/26/18 04:41	16887-00-6	
Fluoride	**0.041J**	mg/L	0.30	0.029	1		09/26/18 04:41	16984-48-8	
Sulfate	**810**	mg/L	50.0	0.85	50		09/26/18 14:05	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 Phase II
Pace Project No.: 269556

Sample: YGWC-43 **Lab ID: 269556003** Collected: 09/20/18 10:55 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 21:35	7440-36-0	
Arsenic	**0.00099J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 21:35	7440-38-2	B
Barium	**0.035**	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 21:35	7440-39-3	
Beryllium	**0.00029J**	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 21:35	7440-41-7	
Boron	**2.1**	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 21:35	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 21:35	7440-43-9	
Calcium	**15.9J**	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 21:41	7440-70-2	D3
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 21:35	7440-47-3	
Cobalt	**0.0034J**	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 21:35	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 21:35	7439-92-1	
Lithium	**0.019J**	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 21:35	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 21:35	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 21:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 21:35	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000052J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:09	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**434**	mg/L	25.0	10.0	1		09/24/18 13:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**1.9**	mg/L	0.25	0.024	1		09/26/18 05:02	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 05:02	16984-48-8	
Sulfate	**247**	mg/L	10.0	0.17	10		09/26/18 14:26	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269556

Sample: YGWC-44 **Lab ID: 269556004** Collected: 09/19/18 13:15 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 21:47	7440-36-0	
Arsenic	**0.00086J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 21:47	7440-38-2	B
Barium	**0.11**	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 21:47	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 21:47	7440-41-7	
Boron	**0.66**	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 21:47	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 21:47	7440-43-9	
Calcium	**29.2**	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 21:53	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 21:47	7440-47-3	
Cobalt	**0.0025J**	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 21:47	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 21:47	7439-92-1	
Lithium	**0.013J**	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 21:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 21:47	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 21:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 21:47	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000060J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:11	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**326**	mg/L	25.0	10.0	1		09/24/18 13:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**14.2**	mg/L	0.25	0.024	1		09/26/18 05:22	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 05:22	16984-48-8	
Sulfate	**137**	mg/L	10.0	0.17	10		09/26/18 14:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269556

Sample: YGWC-45 **Lab ID: 269556005** Collected: 09/19/18 14:50 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 21:58	7440-36-0	
Arsenic	**0.00072J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 21:58	7440-38-2	B
Barium	**0.064**	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 21:58	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 21:58	7440-41-7	
Boron	**0.35**	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 21:58	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 21:58	7440-43-9	
Calcium	**50.5**	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 22:04	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 21:58	7440-47-3	
Cobalt	**0.00081J**	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 21:58	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 21:58	7439-92-1	
Lithium	**0.012J**	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 21:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 21:58	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 21:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 21:58	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000071J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:13	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**413**	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.7**	mg/L	0.25	0.024	1		09/26/18 05:43	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 05:43	16984-48-8	
Sulfate	**192**	mg/L	10.0	0.17	10		09/26/18 15:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269556

Sample: YGWC-46 **Lab ID: 269556006** Collected: 09/19/18 12:00 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 22:10	7440-36-0	
Arsenic	**0.0012J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 22:10	7440-38-2	B
Barium	**0.030**	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 22:10	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 22:10	7440-41-7	
Boron	**1.2**	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 22:10	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 22:10	7440-43-9	
Calcium	**51.9**	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 22:15	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 22:10	7440-47-3	
Cobalt	**0.042**	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 22:10	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 22:10	7439-92-1	
Lithium	**0.011J**	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 22:10	7439-93-2	
Molybdenum	**0.0039J**	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 22:10	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 22:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 22:10	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000070J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:16	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**702**	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**26.5**	mg/L	0.25	0.024	1		09/26/18 06:03	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 06:03	16984-48-8	
Sulfate	**395**	mg/L	20.0	0.34	20		09/26/18 15:30	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269556

Sample: YGWC-49 **Lab ID: 269556007** Collected: 09/20/18 13:55 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 22:33	7440-36-0	
Arsenic	**0.0010J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 22:33	7440-38-2	B
Barium	**0.074**	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 22:33	7440-39-3	
Beryllium	**0.00011J**	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 22:33	7440-41-7	
Boron	**0.0042J**	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 22:33	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 22:33	7440-43-9	
Calcium	**12.0J**	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 22:38	7440-70-2	D3
Chromium	**0.0017J**	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 22:33	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 22:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 22:33	7439-92-1	
Lithium	**0.0036J**	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 22:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 22:33	7439-98-7	
Selenium	**0.0081J**	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 22:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 22:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000061J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:18	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**186**	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.8**	mg/L	0.25	0.024	1		09/26/18 06:24	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 06:24	16984-48-8	
Sulfate	**84.1**	mg/L	10.0	0.17	10		09/26/18 17:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269556

Sample: EB-1-9-20-18 **Lab ID: 269556008** Collected: 09/20/18 09:55 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 22:44	7440-36-0	
Arsenic	**0.00093J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 22:44	7440-38-2	B
Barium	ND	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 22:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 22:44	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 22:44	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 22:44	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	09/25/18 15:15	09/26/18 22:44	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 22:44	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 22:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 22:44	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 22:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 22:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 22:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 22:44	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000056J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:20	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.064J**	mg/L	0.25	0.024	1		09/26/18 06:45	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 06:45	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		09/26/18 06:45	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 Phase II
Pace Project No.: 269556

Sample: Dup-1 **Lab ID: 269556009** Collected: 09/20/18 00:00 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 22:50	7440-36-0	
Arsenic	**0.0011J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 22:50	7440-38-2	B
Barium	**0.074**	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 22:50	7440-39-3	
Beryllium	**0.00012J**	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 22:50	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 22:50	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 22:50	7440-43-9	
Calcium	**12.3J**	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 22:56	7440-70-2	D3
Chromium	**0.0017J**	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 22:50	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 22:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 22:50	7439-92-1	
Lithium	**0.0038J**	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 22:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 22:50	7439-98-7	
Selenium	**0.0073J**	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 22:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 22:50	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000054J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:23	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**182**	mg/L	25.0	10.0	1		09/24/18 13:11		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.6**	mg/L	0.25	0.024	1		09/26/18 08:28	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 08:28	16984-48-8	
Sulfate	**76.8**	mg/L	50.0	0.85	50		09/26/18 17:37	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 Phase II
Pace Project No.: 269556

Sample: FB-1-9-19-18 **Lab ID: 269556010** Collected: 09/19/18 14:20 Received: 09/21/18 09:30 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	09/25/18 15:15	09/26/18 23:01	7440-36-0	
Arsenic	**0.00090J**	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 23:01	7440-38-2	B
Barium	ND	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 23:01	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 23:01	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 23:01	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 23:01	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	09/25/18 15:15	09/26/18 23:01	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 23:01	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 23:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 23:01	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 23:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 23:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 23:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 23:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	**0.000059J**	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:25	7439-97-6	B
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**12.0J**	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.062J**	mg/L	0.25	0.024	1		09/26/18 08:49	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 08:49	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		09/26/18 08:49	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 Phase II
Pace Project No.: 269556

QC Batch: 14279 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

METHOD BLANK: 63605 Matrix: Water
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000076J	0.00050	0.000036	09/27/18 17:19	

LABORATORY CONTROL SAMPLE: 63606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0025	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63607 63608

Parameter	Units	269182001 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	0.0021	0.0020	80	76	75-125	4	20	

SAMPLE DUPLICATE: 63664

Parameter	Units	269182006 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	mg/L	ND	0.000047J		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 Phase II
Pace Project No.: 269556

QC Batch: 14164 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

METHOD BLANK: 63037 Matrix: Water
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/26/18 20:21	
Arsenic	mg/L	0.00070J	0.0050	0.00057	09/26/18 20:21	
Barium	mg/L	ND	0.010	0.00078	09/26/18 20:21	
Beryllium	mg/L	ND	0.0030	0.000050	09/26/18 20:21	
Boron	mg/L	ND	0.040	0.0039	09/26/18 20:21	
Cadmium	mg/L	ND	0.0010	0.000093	09/26/18 20:21	
Calcium	mg/L	ND	0.50	0.014	09/26/18 20:21	
Chromium	mg/L	ND	0.010	0.0016	09/26/18 20:21	
Cobalt	mg/L	ND	0.010	0.00052	09/26/18 20:21	
Lead	mg/L	ND	0.0050	0.00027	09/26/18 20:21	
Lithium	mg/L	ND	0.050	0.00097	09/26/18 20:21	
Molybdenum	mg/L	ND	0.010	0.0019	09/26/18 20:21	
Selenium	mg/L	ND	0.010	0.0014	09/26/18 20:21	
Thallium	mg/L	ND	0.0010	0.00014	09/26/18 20:21	

LABORATORY CONTROL SAMPLE: 63038

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.11	108	80-120	
Arsenic	mg/L	.1	0.11	106	80-120	
Barium	mg/L	.1	0.10	105	80-120	
Beryllium	mg/L	.1	0.11	108	80-120	
Boron	mg/L	1	1.1	111	80-120	
Cadmium	mg/L	.1	0.11	106	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Chromium	mg/L	.1	0.11	109	80-120	
Cobalt	mg/L	.1	0.11	106	80-120	
Lead	mg/L	.1	0.10	104	80-120	
Lithium	mg/L	.1	0.11	109	80-120	
Molybdenum	mg/L	.1	0.11	107	80-120	
Selenium	mg/L	.1	0.10	104	80-120	
Thallium	mg/L	.1	0.11	106	80-120	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269556

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63039 63040

Parameter	Units	269556001 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	106	106	75-125	0	20	
Arsenic	mg/L	0.00072J	.1	.1	0.10	0.10	101	101	75-125	0	20	
Barium	mg/L	0.023	.1	.1	0.12	0.12	100	98	75-125	1	20	
Beryllium	mg/L	0.000057J	.1	.1	0.10	0.10	102	102	75-125	1	20	
Boron	mg/L	0.012J	1	1	1.0	1.0	103	101	75-125	2	20	
Cadmium	mg/L	ND	.1	.1	0.10	0.11	102	106	75-125	4	20	
Calcium	mg/L	11.1J	1	1	11.6J	11.7J	53	60	75-125	1	20	M6
Chromium	mg/L	ND	.1	.1	0.11	0.10	110	103	75-125	7	20	
Cobalt	mg/L	0.0036J	.1	.1	0.11	0.10	106	100	75-125	6	20	
Lead	mg/L	ND	.1	.1	0.10	0.10	102	104	75-125	2	20	
Lithium	mg/L	0.0043J	.1	.1	0.11	0.10	103	99	75-125	3	20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.10	106	104	75-125	1	20	
Selenium	mg/L	ND	.1	.1	0.10	0.10	102	102	75-125	1	20	
Thallium	mg/L	ND	.1	.1	0.10	0.10	103	103	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269556

QC Batch: 14064 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556010

LABORATORY CONTROL SAMPLE: 62639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	401	100	84-108	

SAMPLE DUPLICATE: 62640

Parameter	Units	269556001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	186	178	4	10	

SAMPLE DUPLICATE: 62641

Parameter	Units	269555003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	129	125	3	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269556

QC Batch: 14076
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 269556009

LABORATORY CONTROL SAMPLE: 62675

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	400	100	84-108	

SAMPLE DUPLICATE: 62676

Parameter	Units	269581001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	227	227	0	10	

SAMPLE DUPLICATE: 62677

Parameter	Units	269581010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	139	139	0	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269556

QC Batch: 14110 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

METHOD BLANK: 62772 Matrix: Water
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.057J	0.25	0.024	09/26/18 02:58	
Fluoride	mg/L	ND	0.30	0.029	09/26/18 02:58	
Sulfate	mg/L	ND	1.0	0.017	09/26/18 02:58	

LABORATORY CONTROL SAMPLE: 62773

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	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 62774 62775

Parameter	Units	269556001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.0	10	10	13.8	13.8	97	98	90-110	0	15	
Fluoride	mg/L	ND	10	10	9.8	9.9	98	99	90-110	0	15	
Sulfate	mg/L	75.0	10	10	73.7	73.6	-13	-15	90-110	0	15	E,M1

MATRIX SPIKE SAMPLE: 62776

Parameter	Units	269556002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	3.8	10	13.3	95	90-110	
Fluoride	mg/L	0.041J	10	10.3	102	90-110	
Sulfate	mg/L	810	10	345	-4660	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 Phase II
Pace Project No.: 269556

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.
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
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 269556

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269556001	YGWA-47	EPA 3005A	14164	EPA 6020B	14198
269556002	YGWC-42	EPA 3005A	14164	EPA 6020B	14198
269556003	YGWC-43	EPA 3005A	14164	EPA 6020B	14198
269556004	YGWC-44	EPA 3005A	14164	EPA 6020B	14198
269556005	YGWC-45	EPA 3005A	14164	EPA 6020B	14198
269556006	YGWC-46	EPA 3005A	14164	EPA 6020B	14198
269556007	YGWC-49	EPA 3005A	14164	EPA 6020B	14198
269556008	EB-1-9-20-18	EPA 3005A	14164	EPA 6020B	14198
269556009	Dup-1	EPA 3005A	14164	EPA 6020B	14198
269556010	FB-1-9-19-18	EPA 3005A	14164	EPA 6020B	14198
269556001	YGWA-47	EPA 7470A	14279	EPA 7470A	14340
269556002	YGWC-42	EPA 7470A	14279	EPA 7470A	14340
269556003	YGWC-43	EPA 7470A	14279	EPA 7470A	14340
269556004	YGWC-44	EPA 7470A	14279	EPA 7470A	14340
269556005	YGWC-45	EPA 7470A	14279	EPA 7470A	14340
269556006	YGWC-46	EPA 7470A	14279	EPA 7470A	14340
269556007	YGWC-49	EPA 7470A	14279	EPA 7470A	14340
269556008	EB-1-9-20-18	EPA 7470A	14279	EPA 7470A	14340
269556009	Dup-1	EPA 7470A	14279	EPA 7470A	14340
269556010	FB-1-9-19-18	EPA 7470A	14279	EPA 7470A	14340
269556001	YGWA-47	SM 2540C	14064		
269556002	YGWC-42	SM 2540C	14064		
269556003	YGWC-43	SM 2540C	14064		
269556004	YGWC-44	SM 2540C	14064		
269556005	YGWC-45	SM 2540C	14064		
269556006	YGWC-46	SM 2540C	14064		
269556007	YGWC-49	SM 2540C	14064		
269556008	EB-1-9-20-18	SM 2540C	14064		
269556009	Dup-1	SM 2540C	14076		
269556010	FB-1-9-19-18	SM 2540C	14064		
269556001	YGWA-47	EPA 300.0	14110		
269556002	YGWC-42	EPA 300.0	14110		
269556003	YGWC-43	EPA 300.0	14110		
269556004	YGWC-44	EPA 300.0	14110		
269556005	YGWC-45	EPA 300.0	14110		
269556006	YGWC-46	EPA 300.0	14110		
269556007	YGWC-49	EPA 300.0	14110		
269556008	EB-1-9-20-18	EPA 300.0	14110		
269556009	Dup-1	EPA 300.0	14110		
269556010	FB-1-9-19-18	EPA 300.0	14110		

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
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(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: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates - Phase 2 Facility Wells

PROJECT #: Phase 2 CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) (Container P, Pres. 3)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C) (Container P, Pres. 7)	Radium 226 & 228 (SW-846 9315/9320) (Container P, Pres. 3)	(Container P)					LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
9-19-18	1035	GW		✓	YGWA-47	4	1	1	2							
9-20-18	1230	GW		✓	YGWC-42	4	1	1	2							
9-20-18	1055	GW		✓	YGWC-43	6	1	1	4							Extra Rad here
9-19-18	1315	GW		✓	YGWC-44	4	1	1	2							
9-19-18	1450	GW		✓	YGWC-45	4	1	1	2							
9-19-18	1200	GW		✓	YGWC-46	4	1	1	2							
9-20-18	1355	GW		✓	YGWC-49	4	1	1	2							
9-20-18	0955	W		✓	EB-1-9-20-18	4	1	1	2							
9-20-18	—	GW		✓	DUP-1	4	1	1	2							
9-19-18	1420	W		✓	FB-1-9-19-18	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

WO#: 269556

269556

SAMPLED BY AND TITLE: [signature] ACC — DATE/TIME: 9-20-18 / 1800

RELINQUISHED BY: [signature] — DATE/TIME: 9-20-18 / 0930

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: Charles Hawk — DATE/TIME: 9/21/18 0930

pH Checked: (Yes) No NA — Ice: (Yes) No NA — Temperature: Min 5.4°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 #:
Entered into LIMS:
Tracking #:

APP III and IV

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO# : 269556

PM: BM Due Date: 09/28/18

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 5.4 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/21/18 DR

		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

October 19, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Phase II
Pace Project No.: 269557

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 21, 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
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CERTIFICATIONS

Project: Plant Yates Phase II
Pace Project No.: 269557

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 Phase II
Pace Project No.: 269557

Lab ID	Sample ID	Matrix	Date Collected	Date Received
269557001	**YGWA-47**	Water	09/19/18 10:35	09/21/18 09:30
269557002	**YGWC-42**	Water	09/20/18 12:30	09/21/18 09:30
269557003	**YGWC-43**	Water	09/20/18 10:55	09/21/18 09:30
269557004	**YGWC-44**	Water	09/19/18 13:15	09/21/18 09:30
269557005	**YGWC-45**	Water	09/19/18 14:50	09/21/18 09:30
269557006	**YGWC-46**	Water	09/19/18 12:00	09/21/18 09:30
269557007	**YGWC-49**	Water	09/20/18 13:55	09/21/18 09:30
269557008	**EB-1-9-20-18**	Water	09/20/18 09:55	09/21/18 09:30
269557009	**Dup-1**	Water	09/20/18 00:00	09/21/18 09:30
269557010	**FB-1-9-19-18**	Water	09/19/18 14:20	09/21/18 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 269557

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
269557001	**YGWA-47**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557002	**YGWC-42**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557003	**YGWC-43**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557004	**YGWC-44**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557005	**YGWC-45**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557006	**YGWC-46**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557007	**YGWC-49**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557008	**EB-1-9-20-18**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557009	**Dup-1**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557010	**FB-1-9-19-18**	EPA 9315	JJY	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 Phase II
Pace Project No.: 269557

Sample: YGWA-47 **Lab ID: 269557001** Collected: 09/19/18 10:35 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.343 ± 0.188 (0.282) C:96% T:NA**	pCi/L	10/01/18 09:24	13982-63-3	
Radium-228	EPA 9320	**0.446 ± 0.520 (1.10) C:72% T:71%**	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.789 ± 0.708 (1.38)**	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

Sample: YGWC-42 **Lab ID: 269557002** Collected: 09/20/18 12:30 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.918 ± 0.297 (0.264) C:94% T:NA**	pCi/L	10/01/18 09:24	13982-63-3	
Radium-228	EPA 9320	**1.02 ± 0.546 (0.986) C:70% T:82%**	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**1.94 ± 0.843 (1.25)**	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

Sample: YGWC-43 **Lab ID: 269557003** Collected: 09/20/18 10:55 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**2.35 ± 0.550 (0.352) C:93% T:NA**	pCi/L	10/01/18 09:24	13982-63-3	
Radium-228	EPA 9320	**0.454 ± 0.447 (0.924) C:77% T:81%**	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**2.80 ± 0.997 (1.28)**	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

Sample: YGWC-44 **Lab ID: 269557004** Collected: 09/19/18 13:15 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.180 ± 0.168 (0.329) C:97% T:NA**	pCi/L	10/01/18 09:24	13982-63-3	
Radium-228	EPA 9320	**0.206 ± 0.423 (0.932) C:76% T:81%**	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.386 ± 0.591 (1.26)**	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

Sample: YGWC-45 **Lab ID: 269557005** Collected: 09/19/18 14:50 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.822 ± 0.208 (0.147) C:99% T:NA**	pCi/L	10/01/18 11:05	13982-63-3	
Radium-228	EPA 9320	**0.0174 ± 0.479 (1.10) C:72% T:79%**	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.839 ± 0.687 (1.25)**	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

Sample: YGWC-46 **Lab ID: 269557006** Collected: 09/19/18 12:00 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.441 ± 0.147 (0.154) C:95% T:NA**	pCi/L	10/01/18 12:48	13982-63-3	
Radium-228	EPA 9320	**0.706 ± 0.601 (1.23) C:70% T:84%**	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	**1.15 ± 0.748 (1.38)**	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

Sample: YGWC-49 **Lab ID: 269557007** Collected: 09/20/18 13:55 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.339 ± 0.125 (0.128) C:98% T:NA**	pCi/L	10/01/18 12:48	13982-63-3	
Radium-228	EPA 9320	**0.797 ± 0.585 (1.16) C:78% T:69%**	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	**1.14 ± 0.710 (1.29)**	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

Sample: EB-1-9-20-18 **Lab ID: 269557008** Collected: 09/20/18 09:55 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.179 ± 0.104 (0.169) C:89% T:NA**	pCi/L	10/01/18 12:48	13982-63-3	
Radium-228	EPA 9320	**0.113 ± 0.556 (1.25) C:77% T:79%**	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	**0.292 ± 0.660 (1.42)**	pCi/L	10/12/18 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

Sample: Dup-1 **Lab ID: 269557009** Collected: 09/20/18 00:00 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.250 ± 0.113 (0.153) C:94% T:NA**	pCi/L	10/01/18 15:56	13982-63-3	
Radium-228	EPA 9320	**0.807 ± 0.630 (1.27) C:75% T:72%**	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	**1.06 ± 0.743 (1.42)**	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

Sample: FB-1-9-19-18 **Lab ID: 269557010** Collected: 09/19/18 14:20 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.112 ± 0.0765 (0.123) C:99% T:NA**	pCi/L	10/01/18 15:56	13982-63-3	
Radium-228	EPA 9320	**0.234 ± 0.629 (1.40) C:74% T:74%**	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	**0.346 ± 0.706 (1.52)**	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

QC Batch: 314442 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 269557001, 269557002, 269557003, 269557004, 269557005, 269557006, 269557007, 269557008, 269557009, 269557010

METHOD BLANK: 1534836 Matrix: Water
Associated Lab Samples: 269557001, 269557002, 269557003, 269557004, 269557005, 269557006, 269557007, 269557008, 269557009, 269557010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.188 ± 0.137 (0.225) C:100% T:NA	pCi/L	10/01/18 09:23	

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

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 269557

QC Batch: 314657 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 269557001, 269557002, 269557003, 269557004, 269557005, 269557006, 269557007, 269557008, 269557009, 269557010

METHOD BLANK: 1535684 Matrix: Water
Associated Lab Samples: 269557001, 269557002, 269557003, 269557004, 269557005, 269557006, 269557007, 269557008, 269557009, 269557010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.758 ± 0.397 (0.700) C:79% T:81%	pCi/L	10/09/18 12:59	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Yates Phase II
Pace Project No.: 269557

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 Phase II
Pace Project No.: 269557

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269557001	**YGWA-47**	EPA 9315	314442		
269557002	**YGWC-42**	EPA 9315	314442		
269557003	**YGWC-43**	EPA 9315	314442		
269557004	**YGWC-44**	EPA 9315	314442		
269557005	**YGWC-45**	EPA 9315	314442		
269557006	**YGWC-46**	EPA 9315	314442		
269557007	**YGWC-49**	EPA 9315	314442		
269557008	**EB-1-9-20-18**	EPA 9315	314442		
269557009	**Dup-1**	EPA 9315	314442		
269557010	**FB-1-9-19-18**	EPA 9315	314442		
269557001	**YGWA-47**	EPA 9320	314657		
269557002	**YGWC-42**	EPA 9320	314657		
269557003	**YGWC-43**	EPA 9320	314657		
269557004	**YGWC-44**	EPA 9320	314657		
269557005	**YGWC-45**	EPA 9320	314657		
269557006	**YGWC-46**	EPA 9320	314657		
269557007	**YGWC-49**	EPA 9320	314657		
269557008	**EB-1-9-20-18**	EPA 9320	314657		
269557009	**Dup-1**	EPA 9320	314657		
269557010	**FB-1-9-19-18**	EPA 9320	314657		
269557001	**YGWA-47**	Total Radium Calculation	316531		
269557002	**YGWC-42**	Total Radium Calculation	316531		
269557003	**YGWC-43**	Total Radium Calculation	316531		
269557004	**YGWC-44**	Total Radium Calculation	316531		
269557005	**YGWC-45**	Total Radium Calculation	316531		
269557006	**YGWC-46**	Total Radium Calculation	316531		
269557007	**YGWC-49**	Total Radium Calculation	316531		
269557008	**EB-1-9-20-18**	Total Radium Calculation	316531		
269557009	**Dup-1**	Total Radium Calculation	316531		
269557010	**FB-1-9-19-18**	Total Radium Calculation	316531		

CHAIN OF CUSTODY RECORD

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

CLIENT NAME: Georgia Power

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

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

PROJECT NAME/STATE: Plant Yates - Phase 2 Facility Wells
PROJECT #: 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
					CONTAINER TYPE:		P	P	P	
					PRESERVATION:		3	7	3	
9-19-18	1035	GW		✓	YGWA-47	4	1	1	2	
9-20-18	1230	GW		✓	YGWC-42	4	1	1	2	
9-20-18	1055	GW		✓	YGWC-43	6	1	1	4	
9-19-18	1315	GW		✓	YGWC-44	4	1	1	2	
9-19-18	1450	GW		✓	YGWC-45	4	1	1	2	
9-19-18	1200	GW		✓	YGWC-46	4	1	1	2	
9-20-18	1355	GW		✓	YGWC-49	4	1	1	2	
9-20-18	0955	W		✓	EB-1-9-20-18	4	1	1	2	
9-20-18	—	GW		✓	DUP-1	4	1	1	2	
9-19-18	1420	W		✓	FB-1-9-19-18	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 Red here

WO# : 269557

269557

SAMPLED BY AND TITLE: AIC	DATE/TIME: 9-20-18 / 1800	RELINQUISHED BY:	DATE/TIME: 9-20-18 / 0930
RECEIVED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
RECEIVED BY LAB:	DATE/TIME: 9/21/18 0930	SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS	
pH Checked: Yes No NA	Ice: Yes No NA	Temperature: Min: 1.5 Max: 4°C	Custody Seal: Intact Broken Not Present; # of Coolers; Cooler ID:

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

APP III and IV

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO# : 269557

PM: BM Due Date: 10/19/18

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 5.4 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/21/18 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
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

April 07, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates- Pond-1
Pace Project No.: 2616761

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on March 29, 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
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CERTIFICATIONS

Project: Plant Yates- Pond-1
Pace Project No.: 2616761

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- Pond-1
Pace Project No.: 2616761

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616761001	**YGWA-47**	Water	03/27/19 10:35	03/29/19 10:10
2616761002	**YGWC-44**	Water	03/27/19 14:30	03/29/19 10:10
2616761003	**YGWC-45**	Water	03/27/19 12:00	03/29/19 10:10
2616761004	**YGWC-46**	Water	03/27/19 13:15	03/29/19 10:10
2616761005	**EB-1-3-27-19**	Water	03/27/19 11:40	03/29/19 10:10
2616761006	**Dup-1**	Water	03/27/19 00:00	03/29/19 10:10
2616761007	**FB-1-3-27-19**	Water	03/27/19 14:00	03/29/19 10:10

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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Yates- Pond-1
Pace Project No.: 2616761

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2616761001	**YGWA-47**	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616761002	**YGWC-44**	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616761003	**YGWC-45**	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616761004	**YGWC-46**	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616761005	**EB-1-3-27-19**	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616761006	**Dup-1**	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616761007	**FB-1-3-27-19**	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates- Pond-1
Pace Project No.: 2616761

Sample: YGWA-47 **Lab ID: 2616761001** Collected: 03/27/19 10:35 Received: 03/29/19 10:10 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								
Boron	**0.013J**	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 20:54	7440-42-8	
Calcium	**10.8J**	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 21:00	7440-70-2	D3
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**170**	mg/L	25.0	10.0	1		04/03/19 18:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.3**	mg/L	0.25	0.024	1		04/05/19 00:29	16887-00-6	
Fluoride	**0.081J**	mg/L	0.30	0.029	1		04/05/19 00:29	16984-48-8	
Sulfate	**65.9**	mg/L	10.0	0.17	10		04/06/19 09:04	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- Pond-1
Pace Project No.: 2616761

Sample: YGWC-44 **Lab ID: 2616761002** Collected: 03/27/19 14:30 Received: 03/29/19 10:10 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								
Boron	**0.57**	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 21:06	7440-42-8	
Calcium	**27.9**	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 21:11	7440-70-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**302**	mg/L	25.0	10.0	1		04/03/19 18:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**14.0**	mg/L	0.25	0.024	1		04/05/19 01:10	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/05/19 01:10	16984-48-8	
Sulfate	**146**	mg/L	10.0	0.17	10		04/06/19 09:28	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- Pond-1
Pace Project No.: 2616761

Sample: YGWC-45 **Lab ID: 2616761003** Collected: 03/27/19 12:00 Received: 03/29/19 10:10 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								
Boron	**0.33**	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 21:17	7440-42-8	
Calcium	**48.8**	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 21:23	7440-70-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**383**	mg/L	25.0	10.0	1		04/03/19 18:40		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.6**	mg/L	0.25	0.024	1		04/05/19 01:31	16887-00-6	
Fluoride	**0.18J**	mg/L	0.30	0.029	1		04/05/19 01:31	16984-48-8	
Sulfate	**188**	mg/L	10.0	0.17	10		04/06/19 09:53	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- Pond-1
Pace Project No.: 2616761

Sample: YGWC-46 **Lab ID: 2616761004** Collected: 03/27/19 13:15 Received: 03/29/19 10:10 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								
Boron	**0.89**	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 21:29	7440-42-8	
Calcium	**54.2**	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 21:34	7440-70-2	M6
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**641**	mg/L	25.0	10.0	1		04/03/19 18:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**20.9**	mg/L	0.25	0.024	1		04/05/19 01:52	16887-00-6	
Fluoride	**0.12J**	mg/L	0.30	0.029	1		04/05/19 01:52	16984-48-8	
Sulfate	**437**	mg/L	50.0	0.85	50		04/06/19 10:17	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- Pond-1
Pace Project No.: 2616761

Sample: EB-1-3-27-19 **Lab ID: 2616761005** Collected: 03/27/19 11:40 Received: 03/29/19 10:10 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								
Boron	**0.0054J**	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 22:20	7440-42-8	
Calcium	ND	mg/L	0.50	0.014	1	04/03/19 11:25	04/04/19 22:20	7440-70-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		04/03/19 18:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.082J**	mg/L	0.25	0.024	1		04/05/19 02:13	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/05/19 02:13	16984-48-8	
Sulfate	**0.13J**	mg/L	1.0	0.017	1		04/05/19 02:13	14808-79-8	B

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Yates- Pond-1
Pace Project No.: 2616761

Sample: Dup-1 **Lab ID: 2616761006** Collected: 03/27/19 00:00 Received: 03/29/19 10:10 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								
Boron	**0.92**	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 22:26	7440-42-8	
Calcium	**52.7**	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 22:32	7440-70-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**687**	mg/L	25.0	10.0	1		04/03/19 18:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**20.9**	mg/L	0.25	0.024	1		04/05/19 02:33	16887-00-6	
Fluoride	**0.094J**	mg/L	0.30	0.029	1		04/05/19 02:33	16984-48-8	
Sulfate	**419**	mg/L	50.0	0.85	50		04/06/19 10:41	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- Pond-1
Pace Project No.: 2616761

Sample: FB-1-3-27-19 **Lab ID: 2616761007** Collected: 03/27/19 14:00 Received: 03/29/19 10:10 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								
Boron	ND	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 22:37	7440-42-8	
Calcium	ND	mg/L	0.50	0.014	1	04/03/19 11:25	04/04/19 22:37	7440-70-2	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**13.0J**	mg/L	25.0	10.0	1		04/03/19 18:41		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.19J**	mg/L	0.25	0.024	1		04/05/19 02:54	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/05/19 02:54	16984-48-8	
Sulfate	**0.13J**	mg/L	1.0	0.017	1		04/05/19 02:54	14808-79-8	B

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Yates- Pond-1
Pace Project No.: 2616761

QC Batch: 25683 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2616761001, 2616761002, 2616761003, 2616761004, 2616761005, 2616761006, 2616761007

METHOD BLANK: 115845 Matrix: Water
Associated Lab Samples: 2616761001, 2616761002, 2616761003, 2616761004, 2616761005, 2616761006, 2616761007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0039	04/04/19 18:37	
Calcium	mg/L	ND	0.50	0.014	04/04/19 18:37	

LABORATORY CONTROL SAMPLE: 115846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	100	80-120	
Calcium	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115847 115848

Parameter	Units	2616761004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.89	1	1	1.8	1.8	94	89	75-125	2	20	
Calcium	mg/L	54.2	1	1	58.6	54.4	439	16	75-125	7	20	M6

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- Pond-1
Pace Project No.: 2616761

QC Batch: 25701 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2616761001, 2616761002, 2616761003, 2616761004, 2616761005, 2616761006, 2616761007

LABORATORY CONTROL SAMPLE: 115944

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	399	100	84-108	

SAMPLE DUPLICATE: 115945

Parameter	Units	2616761001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	170	167	2	10	

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- Pond-1
Pace Project No.: 2616761

QC Batch: 25766 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2616761001, 2616761002, 2616761003, 2616761004, 2616761005, 2616761006, 2616761007

METHOD BLANK: 116236 Matrix: Water
Associated Lab Samples: 2616761001, 2616761002, 2616761003, 2616761004, 2616761005, 2616761006, 2616761007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.053J	0.25	0.024	04/04/19 18:36	
Fluoride	mg/L	ND	0.30	0.029	04/04/19 18:36	
Sulfate	mg/L	0.060J	1.0	0.017	04/04/19 18:36	

LABORATORY CONTROL SAMPLE: 116237

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	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116238 116239

Parameter	Units	2616760001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.4	10	10	11.2	11.4	99	100	90-110	1	15	
Fluoride	mg/L	ND	10	10	9.8	9.9	98	99	90-110	1	15	
Sulfate	mg/L	17.7	10	10	26.1	26.2	84	85	90-110	0	15	M1

MATRIX SPIKE SAMPLE: 116240

Parameter	Units	2616760002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.4	10	14.7	103	90-110	
Fluoride	mg/L	ND	10	10.1	101	90-110	
Sulfate	mg/L	34.3	10	41.3	69	90-110	M1

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

QUALIFIERS

Project: Plant Yates- Pond-1
Pace Project No.: 2616761

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.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
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- Pond-1
Pace Project No.: 2616761

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616761001	**YGWA-47**	EPA 3005A	25683	EPA 6020B	25758
2616761002	**YGWC-44**	EPA 3005A	25683	EPA 6020B	25758
2616761003	**YGWC-45**	EPA 3005A	25683	EPA 6020B	25758
2616761004	**YGWC-46**	EPA 3005A	25683	EPA 6020B	25758
2616761005	**EB-1-3-27-19**	EPA 3005A	25683	EPA 6020B	25758
2616761006	**Dup-1**	EPA 3005A	25683	EPA 6020B	25758
2616761007	**FB-1-3-27-19**	EPA 3005A	25683	EPA 6020B	25758
2616761001	**YGWA-47**	SM 2540C	25701		
2616761002	**YGWC-44**	SM 2540C	25701		
2616761003	**YGWC-45**	SM 2540C	25701		
2616761004	**YGWC-46**	SM 2540C	25701		
2616761005	**EB-1-3-27-19**	SM 2540C	25701		
2616761006	**Dup-1**	SM 2540C	25701		
2616761007	**FB-1-3-27-19**	SM 2540C	25701		
2616761001	**YGWA-47**	EPA 300.0	25766		
2616761002	**YGWC-44**	EPA 300.0	25766		
2616761003	**YGWC-45**	EPA 300.0	25766		
2616761004	**YGWC-46**	EPA 300.0	25766		
2616761005	**EB-1-3-27-19**	EPA 300.0	25766		
2616761006	**Dup-1**	EPA 300.0	25766		
2616761007	**FB-1-3-27-19**	EPA 300.0	25766		

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

CC:

REQUESTED COMPLETION DATE:

PO #:

PROJECT NAME/STATE: Plant Yates - Pond 1

PROJECT #:

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III (EPA 6020/7470) Boron, Calcium	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)
					CONTAINER TYPE:		P	P
					PRESERVATION:		3	7
3-27-19	1035	GW		✓	YGWA-47	2	1	1
3-27-19	1430	GW		✓	YGWC-44	2	1	1
3-27-19	1200	GW		✓	YGWC-45	2	1	1
3-27-19	1315	GW		✓	YGWC-46	2	1	1
3-27-19	1140	W		✓	EB-1-3-27-19	2	1	1
3-27-19	—	GW		✓	Dup-1	2	1	1
3-27-19	1400	W		✓	FB-1-3-27-19	2	1	1

LAB ID NUMBER

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#: 2616761

2616761

SAMPLED BY AND TITLE: [signature] ACC — DATE/TIME: See above

RELINQUISHED BY: [signature] — DATE/TIME: 3-29-19 1010

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY / LAB: [signature] — DATE/TIME: 03/29/19 1010

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

pH checked: Yes No NA

Ice: Yes No NA

Temperature: Min: 0.3 Max:

Custody Seal: Intact Broken Not Present

# of Coolers:

Cooler ID:

FOR LAB USE ONLY

LAB #:

Entered into LIMS:

Tracking #:

APP III

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 2616761

PM: BM Due Date: 04/05/19

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 0.3 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/29/19 MK

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: 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: 2016-08-30 12:07:43

Project Information:		Pump Information:	
Operator Name	WB	Pump Model/Type	Proactive Alexis
Company Name	AECOM	Tubing Type	PE
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	YGWA-47	Tubing Length	63 ft
Latitude	33º 27' 46.18"		
Longitude	-84º -53' -55.2"		
Sonde SN	449474		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	54 ft

Well Information:		Pumping Information:	
Well ID	YGWA-47	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.3711957 L
Well Total Depth	58.98 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	6.4 in
Depth to Water	26.29 ft	Total Volume Pumped	5.9 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%	+/- 10		+/- 0.3	+/- 10
Last 5	11:43:54	1200.02	22.27	5.84	411.15	2.40	26.92	0.87	22.73
Last 5	11:48:54	1500.02	21.96	5.82	421.20	2.47	26.95	1.08	23.13
Last 5	11:53:54	1800.02	22.03	5.80	422.34	1.49	26.94	1.49	26.19
Last 5	11:58:54	2100.02	21.86	5.78	417.43	1.15	26.93	1.56	28.07
Last 5	12:03:54	2400.02	21.86	5.75	418.11	1.30	26.93	1.62	29.73
Variance 0			0.07	-0.01	1.14			0.42	3.06
Variance 1			-0.17	-0.03	-4.91			0.07	1.88
Variance 2			-0.00	-0.03	0.68			0.05	1.66

Notes

Collect sample at 12:10. Collect DUP-1. Well ID on stick up well casing is "YGWC-47". GPC was notified. Correct well ID is "YGWA-47".

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-14 11:18:39

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates AP - Phase 2 CCR	Tubing Diameter	.17 in
Site Name	Plant Yates - Phase 2	Tubing Length	53 ft
Latitude	33º 28' 6.18"		
Longitude	-84º -54' -13.48"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58 ft

Well Information:		Pumping Information:	
Well ID	YGWA 47	Final Pumping Rate	170 mL/min
Well diameter	2 in	Total System Volume	0.7215614 L
Well Total Depth	58.90 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	10 in
Depth to Water	28.68 ft	Total Volume Pumped	4.25 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	10:56:54	300.02	18.96	5.51	402.86	2.92	29.50	1.51	116.94
Last 5	11:01:54	600.01	18.85	5.52	404.18	1.55	29.50	1.52	113.61
Last 5	11:06:54	900.01	18.84	5.52	402.85	1.14	29.50	1.57	114.22
Last 5	11:11:54	1200.01	18.93	5.54	402.14	0.89	29.50	1.57	115.11
Last 5	11:16:54	1500.01	19.01	5.59	406.45	0.86	29.50	1.53	115.62
Variance 0			-0.02	-0.00	-1.33			0.05	0.61
Variance 1			0.09	0.02	-0.72			0.00	0.89
Variance 2			0.08	0.04	4.32			-0.04	0.51

Notes

Sample collected at 11:20. Sunny 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-24 11:56:29

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates AP - Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase 2	Tubing Length	64 ft
Latitude	33º 28' 6.14"		
Longitude	-84º -54' -13.46"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	54 ft

Well Information:		Pumping Information:	
Well ID	YGWA-47	Final Pumping Rate	230 mL/min
Well diameter	2 in	Total System Volume	1.874993 L
Well Total Depth	59.50 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9.96 in
Depth to Water	31.17 ft	Total Volume Pumped	5.75 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	11:34:35	300.03	19.86	5.50	337.96	9.78	32.10	1.98	143.96
Last 5	11:39:35	600.02	19.75	5.45	338.35	5.25	32.00	1.93	145.03
Last 5	11:44:35	900.02	19.49	5.49	343.71	2.84	32.00	1.95	142.54
Last 5	11:49:35	1200.00	19.35	5.49	346.54	2.39	32.00	2.00	142.37
Last 5	11:54:35	1500.01	19.42	5.49	345.66	1.79	32.00	2.00	142.17
Variance 0			-0.26	0.04	5.36			0.01	-2.49
Variance 1			-0.14	-0.00	2.83			0.05	-0.16
Variance 2			0.06	-0.00	-0.88			0.01	-0.21

Notes

Sunny 70's. Sampled at 12:00.

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-08 12:02:06

Project Information:		Pump Information:	
Operator Name	J Berisford	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates AP - Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates - Ash Ponds	Tubing Length	59.5 ft
Latitude	33º 28' 6.63"		
Longitude	-84º -54' -13.48"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	56 ft

Well Information:		Pumping Information:	
Well ID	YGWA-47	Final Pumping Rate	230 mL/min
Well diameter	2 in	Total System Volume	0.4898264 L
Well Total Depth	59.50 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	32.46 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	11:40:25	600.01	19.22	5.56	311.58	3.92	33.40	3.01	133.48
Last 5	11:45:25	900.01	19.24	5.57	314.29	1.73	33.40	2.92	134.57
Last 5	11:50:25	1200.02	19.24	5.57	316.86	1.43	33.40	2.89	135.52
Last 5	11:55:25	1500.00	19.33	5.57	318.48	1.03	33.40	2.86	136.33
Last 5	12:00:25	1800.00	19.28	5.58	320.37	0.91	33.40	2.86	136.98
Variance 0			0.00	0.00	2.58			-0.03	0.95
Variance 1			0.09	0.00	1.62			-0.03	0.82
Variance 2			-0.04	0.00	1.89			-0.01	0.65

Notes

Sunny, sample time -1200

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-11 10:38:56

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	QED
Company Name	Atlantic Coast Consulting	Tubing Type	Poly
Project Name	Plant Yates AP - Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase II	Tubing Length	64 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	407447		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	54 ft

Well Information:		Pumping Information:	
Well ID	YGWA-47	Final Pumping Rate	210 mL/min
Well diameter	2 in	Total System Volume	1.779993 L
Well Total Depth	59.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9 in
Depth to Water	33.25 ft	Total Volume Pumped	6.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1%	+/- 3%	+/- 10		+/- 0.3%	+/- 10
Last 5	10:17:44	600.03	19.60	5.92	285.33	2.51	34.00	3.39	85.92
Last 5	10:22:44	900.02	19.64	5.72	287.44	2.05	34.00	3.30	82.05
Last 5	10:27:44	1200.02	19.36	5.64	290.19	2.43	34.00	3.22	79.56
Last 5	10:32:44	1500.42	19.60	5.61	291.44	2.27	34.00	3.18	77.01
Last 5	10:37:44	1800.42	19.86	5.58	292.18	1.42	34.00	3.12	76.82
Variance 0			-0.28	-0.08	2.75			-0.09	-2.49
Variance 1			0.23	-0.03	1.24			-0.03	-2.56
Variance 2			0.27	-0.02	0.74			-0.07	-0.18

Notes

Sunny 80's. Sampled at 10:40.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 10:54:45

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	60 ft
Latitude	33º 27' 27.71"		
Longitude	-84º -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	54.5 ft

Well Information:		Pumping Information:	
Well ID	YGWA-47	Final Pumping Rate	180 mL/min
Well diameter	2 in	Total System Volume	1.788119 L
Well Total Depth	59.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	34.4 ft	Total Volume Pumped	7.2 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	10:30:29	600.01	20.61	5.71	294.29	1.64	34.70	3.85	115.92
Last 5	10:35:29	900.01	20.36	5.58	291.06	1.47	34.70	3.73	116.87
Last 5	10:40:29	1200.00	20.33	5.52	290.45	2.08	34.70	3.61	118.88
Last 5	10:45:29	1500.00	20.35	5.52	290.73	1.64	34.70	3.54	119.59
Last 5	10:50:29	1800.00	20.49	5.49	291.72	1.81	34.70	3.49	121.60
Variance 0			-0.03	-0.06	-0.61			-0.11	2.01
Variance 1			0.02	-0.01	0.28			-0.08	0.71
Variance 2			0.14	-0.02	0.99			-0.04	2.01

Notes

Collected at 10:55. Cloudy 70s

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-02 14:27:46

Project Information:		Pump Information:	
Operator Name	J Berisford	Pump Model/Type	QED Bladder
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant Yates- Phase 2	Tubing Diameter	.375 in
Site Name	Plant Yates	Tubing Length	59 ft
Latitude	33° 28' 5.97"		
Longitude	-84° -54' -13.36"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	54 ft

Well Information:		Pumping Information:	
Well ID	YGWA-47	Final Pumping Rate	180 mL/min
Well diameter	2 in	Total System Volume	1.7664 L
Well Total Depth	59.50 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.64 in
Depth to Water	35.93 ft	Total Volume Pumped	6.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	14:05:49	900.01	20.14	6.16	283.99	4.06	36.30	3.03	127.51
Last 5	14:10:49	1200.00	20.17	6.11	282.91	4.08	36.40	2.85	129.98
Last 5	14:15:49	1500.00	20.21	6.31	282.09	2.96	36.40	2.72	132.17
Last 5	14:20:49	1799.99	20.22	6.31	282.86	3.33	36.40	2.71	133.97
Last 5	14:25:49	2099.99	20.05	6.30	282.94	2.95	36.40	2.61	136.27
Variance 0			0.04	0.20	-0.82			-0.13	2.19
Variance 1			0.00	0.00	0.77			-0.02	1.81
Variance 2			-0.17	-0.01	0.08			-0.09	2.30

Notes

Sunny, sample time-1425

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-19 10:31:05

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.25 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	60 ft
Latitude	33° 27' 27.71"		
Longitude	-84° -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	54 ft

Well Information:		Pumping Information:	
Well ID	YGWA-47	Final Pumping Rate	190 mL/min
Well diameter	2 in	Total System Volume	1.064164 L
Well Total Depth	59.50 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	7 in
Depth to Water	36.00 ft	Total Volume Pumped	8.5 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	10:09:34	900.03	19.59	5.97	247.04	4.83	36.50	3.19	105.25
Last 5	10:14:34	1200.02	19.64	5.74	244.22	4.01	36.50	3.03	100.29
Last 5	10:19:34	1500.02	19.68	5.57	245.59	3.74	36.50	2.97	100.39
Last 5	10:24:34	1800.02	19.63	5.51	245.60	3.02	36.50	2.92	99.32
Last 5	10:29:36	2102.01	19.64	5.48	245.28	2.90	36.50	2.87	98.62
Variance 0			0.04	-0.17	1.36			-0.06	0.10
Variance 1			-0.05	-0.07	0.02			-0.05	-1.07
Variance 2			0.01	-0.03	-0.32			-0.05	-0.70

Notes

Collected at 10:35. Sunny 80s

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 10:37:38

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 - Pond 1	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	60 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	369807		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	YGWA-47	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	1.064164 L
Well Total Depth	59.5 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3 in
Depth to Water	31.59 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	10:14:12	600.01	16.12	6.23	253.98	2.31	31.70	4.66	177.43
Last 5	10:19:12	900.00	16.47	5.92	251.40	2.89	31.70	3.91	189.67
Last 5	10:24:12	1199.99	16.69	5.84	251.57	2.30	31.80	3.35	185.10
Last 5	10:29:12	1499.98	16.96	5.82	251.18	2.46	31.80	3.15	180.53
Last 5	10:34:13	1800.98	17.00	5.83	251.17	2.11	31.80	3.16	178.30
Variance 0			0.22	-0.08	0.17			-0.56	-4.57
Variance 1			0.27	-0.02	-0.39			-0.20	-4.56
Variance 2			0.04	0.00	-0.01			0.01	-2.23

Notes

Sampled at 10:35. Sunny 50s.

Grab Samples

Product Name: Low-Flow System

Date: 2016-08-31 11:46:32

Project Information:		Pump Information:	
Operator Name	Michael Hutchinson	Pump Model/Type	Bladder
Company Name	AECOM	Tubing Type	poly
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	YGWC-44	Tubing Length	94 ft
Latitude	33º 27' 44.01"		
Longitude	-84º -53' -58.76"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	84 ft

Well Information:		Pumping Information:	
Well ID	YGWC-44	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.6095617 L
Well Total Depth	89.00 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	126.36 in
Depth to Water	46.19 ft	Total Volume Pumped	17.125 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%	+/- 10		+/- 0.2	+/- 10
Last 5	11:18:23	8099.92	22.32	6.01	505.54	1.42	56.80	0.14	-28.18
Last 5	11:23:23	8399.92	22.98	5.99	517.15	1.81	56.76	0.15	-17.73
Last 5	11:28:23	8699.92	22.91	6.00	518.23	2.58	56.72	0.13	-8.30
Last 5	11:33:23	8999.92	22.73	6.00	510.89	2.65	56.79	0.13	-3.42
Last 5	11:38:23	9299.92	23.43	6.01	512.89	2.85	56.72	0.16	-4.73
Variance 0			-0.07	0.00	1.08			-0.01	9.42
Variance 1			-0.19	0.01	-7.35			-0.01	4.88
Variance 2			0.70	0.01	2.01			0.03	-1.31

Notes

Slowed pure rate from 150 ml/min to 100 ml/min to 75 ml/min

Grab Samples

YGWC-44

Sample time-1140

Product Name: Low-Flow System

Date: 2016-11-15 12:54:16

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 Phase 2 CCR	Tubing Diameter	.17 in
Site Name	Plant Yates	Tubing Length	93 ft
Latitude	33º 27' 46.14"		
Longitude	-84º -53' -52.68"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	83 ft

Well Information:		Pumping Information:	
Well ID	YGWC-44	Final Pumping Rate	70 mL/min
Well diameter	2 in	Total System Volume	0.8050984 L
Well Total Depth	88.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	36 in
Depth to Water	48.27 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	12:29:10	1500.01	20.53	5.90	504.13	1.47	50.80	0.31	26.74
Last 5	12:34:10	1800.00	20.93	5.89	508.37	1.82	51.00	0.36	26.26
Last 5	12:39:10	2100.00	20.84	5.90	510.11	1.67	51.10	0.34	29.01
Last 5	12:44:10	2400.00	21.54	5.90	507.33	1.08	51.10	0.32	31.46
Last 5	12:49:10	2699.99	22.04	5.91	506.80	0.92	51.20	0.30	33.41
Variance 0			-0.09	0.01	1.74			-0.01	2.75
Variance 1			0.70	0.00	-2.79			-0.02	2.46
Variance 2			0.50	0.00	-0.53			-0.02	1.95

Notes

Collected at 1400. Sunny 60s. FB-1-11-15-16 here at 12:25

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-28 10:24:30

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 Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates	Tubing Length	92 ft
Latitude	33º 27' 46.14"		
Longitude	-84º -53' -52.68"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	85 ft

Well Information:		Pumping Information:	
Well ID	YGWC-44	Final Pumping Rate	60 mL/min
Well diameter	2 in	Total System Volume	2.483115 L
Well Total Depth	90 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	27 in
Depth to Water	49.43 ft	Total Volume Pumped	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	10:01:28	900.02	16.38	5.90	494.12	1.65	51.20	1.68	57.05
Last 5	10:06:29	1201.01	16.47	5.86	493.22	1.40	51.30	1.55	63.92
Last 5	10:11:29	1501.00	16.41	5.86	492.56	1.46	51.40	1.42	67.13
Last 5	10:16:29	1800.99	16.42	5.85	492.46	1.21	51.50	1.39	70.02
Last 5	10:21:29	2100.99	16.38	5.85	492.22	1.16	51.60	1.41	71.32
Variance 0			-0.06	0.00	-0.66			-0.13	3.21
Variance 1			0.01	-0.01	-0.10			-0.03	2.89
Variance 2			-0.04	0.00	-0.24			0.01	1.30

Notes

Collected at 10:30. Cloudy 50s. FB-1 here at 10:00

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-08 13:36:15

Project Information:		Pump Information:	
Operator Name	J Berisford	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	poly
Project Name	Plant Yates - Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase 2	Tubing Length	90 ft
Latitude	33º 28' 0.74"		
Longitude	-84º -54' -20.29"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	85 ft

Well Information:		Pumping Information:	
Well ID	YGWC-44	Final Pumping Rate	65 mL/min
Well diameter	2 in	Total System Volume	2.439678 L
Well Total Depth	90 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	23 in
Depth to Water	49.9 ft	Total Volume Pumped	3.3 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	13:15:37	1800.01	22.14	5.91	479.17	0.50	51.60	0.36	105.92
Last 5	13:20:37	2100.01	22.22	5.91	476.56	0.61	51.70	0.34	106.20
Last 5	13:25:37	2400.01	22.24	5.91	477.46	0.95	51.80	0.31	106.31
Last 5	13:30:37	2699.97	22.36	5.91	482.23	0.74	51.80	0.29	106.75
Last 5	13:35:37	2999.97	22.11	5.91	481.22	0.41	51.80	0.29	106.85
Variance 0			0.02	-0.00	0.90			-0.02	0.11
Variance 1			0.12	-0.01	4.76			-0.02	0.44
Variance 2			-0.25	0.01	-1.00			-0.01	0.11

Notes

Sunny, sample time-1335

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-13 12:22:43

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	QED
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant Yates AP - Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase II	Tubing Length	95 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	408206		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	85 ft

Well Information:		Pumping Information:	
Well ID	YGWC-44	Final Pumping Rate	70 mL/min
Well diameter	2 in	Total System Volume	2.453271 L
Well Total Depth	90 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	25.92 in
Depth to Water	49.74 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	12:01:08	1800.02	23.48	5.81	467.94	1.88	51.50	0.35	165.19
Last 5	12:06:08	2100.02	23.44	5.80	467.59	1.41	51.60	0.32	167.86
Last 5	12:11:08	2400.02	23.93	5.80	466.97	1.25	51.70	0.30	166.65
Last 5	12:16:08	2700.02	23.82	5.80	462.56	1.38	51.80	0.28	168.02
Last 5	12:21:08	3000.02	23.98	5.80	463.24	1.71	51.90	0.28	168.49
Variance 0			0.49	-0.00	-0.62			-0.02	-1.21
Variance 1			-0.11	-0.00	-4.41			-0.02	1.37
Variance 2			0.16	0.00	0.68			-0.00	0.47

Notes

Sunny 80's. Sampled at 12:25.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 14:14:08

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	90 ft
Latitude	33º 27' 27.71"		
Longitude	-84º -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	85 ft

Well Information:		Pumping Information:	
Well ID	YGWC-44	Final Pumping Rate	75 mL/min
Well diameter	2 in	Total System Volume	2.439678 L
Well Total Depth	90 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	15 in
Depth to Water	50.67 ft	Total Volume Pumped	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	13:50:32	900.00	27.90	5.86	488.89	2.81	51.70	1.62	9.86
Last 5	13:55:32	1200.00	27.80	5.79	488.62	2.39	51.80	0.98	31.15
Last 5	14:00:32	1500.00	28.59	5.77	490.15	1.92	51.80	0.69	44.01
Last 5	14:05:32	1799.99	28.73	5.77	488.02	2.15	51.90	0.57	52.54
Last 5	14:10:32	2099.99	28.73	5.76	489.06	2.02	51.90	0.56	58.48
Variance 0			0.79	-0.02	1.53			-0.29	12.87
Variance 1			0.14	0.00	-2.13			-0.11	8.53
Variance 2			-0.00	-0.01	1.04			-0.02	5.94

Notes

Collected at 14:15. Sunny 80s. EB-1 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-04 12:06:02

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.25 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	90 ft
Latitude	33º 27' 27.71"		
Longitude	-84º -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	85 ft

Well Information:		Pumping Information:	
Well ID	YGWC-44	Final Pumping Rate	70 mL/min
Well diameter	2 in	Total System Volume	1.353746 L
Well Total Depth	90.9 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	17 in
Depth to Water	50.65 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	11:43:56	1200.00	17.14	5.87	488.04	1.45	51.60	0.94	81.06
Last 5	11:48:56	1500.00	17.05	5.80	487.40	1.22	51.70	0.77	84.92
Last 5	11:53:56	1799.98	17.09	5.82	491.92	1.23	51.80	0.68	84.14
Last 5	11:58:56	2099.98	17.39	5.80	491.02	1.45	51.90	0.46	85.83
Last 5	12:03:56	2399.97	17.45	5.77	491.02	1.31	52.00	0.37	87.40
Variance 0			0.05	0.02	4.53			-0.09	-0.78
Variance 1			0.30	-0.02	-0.90			-0.21	1.69
Variance 2			0.06	-0.03	-0.00			-0.09	1.57

Notes

Collected at 12:05. Cloudy 50s. EB 6 here at 11:30 - tubing

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-19 13:13:39

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.25 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	80 ft
Latitude	33° 27' 27.71"		
Longitude	-84° -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	74 ft

Well Information:		Pumping Information:	
Well ID	YGWC-44	Final Pumping Rate	140 mL/min
Well diameter	2 in	Total System Volume	1.257218 L
Well Total Depth	79.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	24 in
Depth to Water	50.52 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	12:52:00	600.03	22.85	5.89	466.78	4.77	52.00	1.03	15.70
Last 5	12:57:00	900.02	22.58	5.80	465.27	3.12	52.20	0.56	35.99
Last 5	13:02:00	1200.02	22.58	5.73	468.31	2.36	52.40	0.46	47.46
Last 5	13:07:00	1500.02	23.92	5.79	473.19	3.01	52.50	0.46	46.65
Last 5	13:12:00	1800.01	24.24	5.77	465.57	2.47	52.60	0.48	50.28
Variance 0			0.01	-0.07	3.04			-0.10	11.48
Variance 1			1.34	0.06	4.87			-0.00	-0.81
Variance 2			0.32	-0.02	-7.61			0.02	3.63

Notes

Collected at 13:15. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 14:25:37

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 - Pond 1	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	90 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	369807		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	85 ft

Well Information:		Pumping Information:	
Well ID	YGWC-44	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	1.353746 L
Well Total Depth	90 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	18 in
Depth to Water	47.88 ft	Total Volume Pumped	5.1 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	14:01:27	899.99	19.39	6.22	465.28	1.73	48.90	1.04	114.32
Last 5	14:06:27	1199.99	19.66	6.16	466.22	1.34	49.10	0.89	116.98
Last 5	14:11:27	1499.98	19.81	6.13	465.91	0.94	49.20	0.70	117.86
Last 5	14:16:27	1799.97	19.90	6.11	463.72	0.86	49.30	0.49	117.76
Last 5	14:21:27	2099.96	19.68	6.10	464.76	0.92	49.40	0.36	116.37
Variance 0			0.15	-0.03	-0.31			-0.19	0.88
Variance 1			0.09	-0.02	-2.18			-0.21	-0.10
Variance 2			-0.22	-0.01	1.04			-0.13	-1.39

Notes

Sampled at 14:30. Sunny 60s. FB 1 here at 14:00

Grab Samples

Product Name: Low-Flow System

Date: 2016-08-31 14:27:39

Project Information:		Pump Information:	
Operator Name	Michael Hutchinson	Pump Model/Type	Peristaltic
Company Name	AECOM	Tubing Type	poly
Project Name	Plant Yates	Tubing Diameter	.17 in
Site Name	YGWC-45	Tubing Length	79 ft
Latitude	33º 28' 1.94"		
Longitude	-84º -54' -20.38"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	69 ft

Well Information:		Pumping Information:	
Well ID	YGWC-45	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	0.4426104 L
Well Total Depth	73.84 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	18.72 in
Depth to Water	22.34 ft	Total Volume Pumped	5.75 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%	+/- 10		+/- 0.2	+/- 10
Last 5	14:03:25	1500.02	22.75	7.10	650.46	3.42	23.77	0.21	-116.00
Last 5	14:08:25	1799.99	23.24	7.13	642.51	2.92	23.83	0.20	-123.10
Last 5	14:13:25	2099.99	23.82	7.14	631.15	3.29	23.86	0.19	-120.09
Last 5	14:18:25	2399.99	23.96	7.14	633.25	3.17	23.88	0.18	-106.02
Last 5	14:23:25	2699.99	23.81	7.15	627.47	3.33	23.90	0.18	-112.23
Variance 0			0.58	0.01	-11.36			-0.02	3.02
Variance 1			0.14	-0.00	2.10			-0.01	14.06
Variance 2			-0.14	0.02	-5.78			-0.00	-6.21

Notes

Grab Samples
YGWC-45
Sample time-1425

Product Name: Low-Flow System

Date: 2016-11-14 13:26:57

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 - Phase 2 CCR	Tubing Diameter	.17 in
Site Name	Plant Yates - Phase 2	Tubing Length	73 ft
Latitude	33º 27' 58.81"		
Longitude	-84º -54' -24.08"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	68 ft

Well Information:		Pumping Information:	
Well ID	YGWC 45	Final Pumping Rate	160 mL/min
Well diameter	2 in	Total System Volume	0.5658299 L
Well Total Depth	73.80 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.5 in
Depth to Water	2**2.**84 ft	Total Volume Pumped	8.8 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	13:04:38	1800.01	20.05	6.91	647.52	1.01	25.20	0.16	-114.28
Last 5	13:09:38	2100.01	20.03	6.97	647.08	0.83	25.30	0.16	-119.41
Last 5	13:14:37	2399.98	20.07	6.92	648.83	1.33	25.30	0.14	-103.35
Last 5	13:19:37	2699.98	20.13	6.95	640.33	1.41	25.30	0.14	-99.48
Last 5	13:24:37	2999.98	20.07	6.96	641.44	1.20	25.30	0.14	-103.77
Variance 0			0.05	-0.05	1.75			-0.03	16.07
Variance 1			0.05	0.03	-8.50			0.01	3.86
Variance 2			-0.06	0.02	1.10			0.00	-4.29

Notes

Sample collected at 13:30. Sunny 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-27 10:43:06

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 Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates	Tubing Length	75 ft
Latitude	33º 27' 46.14"		
Longitude	-84º -53' -52.68"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	69 ft

Well Information:		Pumping Information:	
Well ID	YGWC-45	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	2.118898 L
Well Total Depth	74.00 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	16 in
Depth to Water	22.47 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	10:20:46	900.01	16.47	6.54	656.05	3.65	23.60	1.16	10.78
Last 5	10:25:47	1201.01	16.59	6.59	650.73	3.23	23.70	1.01	7.21
Last 5	10:30:47	1500.99	16.56	6.69	644.76	3.59	23.70	0.80	6.44
Last 5	10:35:47	1800.98	16.65	6.76	642.87	3.78	23.70	0.72	3.52
Last 5	10:40:47	2100.98	16.65	6.79	643.64	3.61	23.70	0.68	-0.29
Variance 0			-0.03	0.10	-5.97			-0.21	-0.77
Variance 1			0.09	0.07	-1.89			-0.08	-2.92
Variance 2			0.00	0.03	0.78			-0.04	-3.81

Notes

Collected at 10:45. Cloudy 50s

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-09 15:30:31

Project Information:		Pump Information:	
Operator Name	J Berisford	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	Poly
Project Name	Plant Yates - Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase 2	Tubing Length	74 ft
Latitude	33º 27' 58.61"		
Longitude	-84º -54' -23.98"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	69 ft

Well Information:		Pumping Information:	
Well ID	YGWC-45	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	2.09218 L
Well Total Depth	74 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	22.71 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	15:05:05	1800.01	22.35	6.74	617.21	1.43	23.70	0.33	56.40
Last 5	15:10:05	2100.01	22.37	6.80	617.97	1.15	23.70	0.31	48.66
Last 5	15:15:05	2400.02	22.40	6.85	616.34	1.23	23.70	0.30	42.06
Last 5	15:20:05	2700.02	22.34	6.88	613.37	1.51	23.70	0.29	35.97
Last 5	15:25:05	2999.97	22.18	6.90	614.88	1.56	23.70	0.26	31.11
Variance 0			0.03	0.05	-1.63			-0.01	-6.60
Variance 1			-0.06	0.03	-2.97			-0.02	-6.09
Variance 2			-0.17	0.03	1.51			-0.03	-4.86

Notes

Sunny, sample time -1525, FB-1-5-9-17 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-13 10:36:24

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	QED
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant Yates AP - Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase II	Tubing Length	79 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	408206		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	69 ft

Well Information:		Pumping Information:	
Well ID	YGWC-45	Final Pumping Rate	120 mL/min
Well diameter	2 in	Total System Volume	2.105773 L
Well Total Depth	74 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	17.88 in
Depth to Water	22.11 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			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:13:35	600.03	21.29	6.68	599.98	2.53	23.20	0.58	36.94
Last 5	10:18:35	900.02	21.08	6.68	599.98	1.86	23.30	0.50	54.32
Last 5	10:23:35	1200.02	21.06	6.73	599.50	1.95	23.50	0.37	51.36
Last 5	10:28:35	1500.02	21.33	6.75	600.14	1.80	23.60	0.25	40.68
Last 5	10:33:35	1800.02	21.66	6.77	599.36	1.62	23.60	0.23	32.30
Variance 0			-0.02	0.05	-0.47			-0.13	-2.97
Variance 1			0.27	0.02	0.63			-0.12	-10.67
Variance 2			0.33	0.02	-0.78			-0.03	-8.38

Notes

Sunny 80's. Sampled at 10:35.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-10 12:39:51

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	60 ft
Latitude	33º 27' 27.71"		
Longitude	-84º -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	YGWC-45	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	1.788119 L
Well Total Depth	60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	22.72 ft	Total Volume Pumped	7.5 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	12:15:39	300.01	23.34	6.64	613.56	2.39	23.50	0.28	-20.67
Last 5	12:20:39	600.00	23.70	6.72	613.90	4.07	23.60	0.28	-20.50
Last 5	12:25:39	900.00	24.08	6.82	614.90	3.40	23.70	0.25	-18.75
Last 5	12:30:39	1199.99	24.33	6.87	614.04	2.22	23.70	0.27	-16.83
Last 5	12:35:40	1501.03	24.88	6.90	616.57	2.75	23.70	0.33	-17.56
Variance 0			0.38	0.10	1.00			-0.03	1.76
Variance 1			0.25	0.05	-0.86			0.02	1.91
Variance 2			0.55	0.03	2.53			0.06	-0.73

Notes

Collected at 12:40. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-03 13:59:29

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.25 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	60 ft
Latitude	33º 27' 27.71"		
Longitude	-84º -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	YGWC-45	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	1.064164 L
Well Total Depth	60.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	17 in
Depth to Water	22.30 ft	Total Volume Pumped	4.4 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	13:35:23	600.01	21.51	6.37	588.16	4.62	23.10	1.97	103.39
Last 5	13:40:23	900.02	19.46	6.28	614.23	4.04	23.40	0.48	80.50
Last 5	13:45:23	1200.02	19.80	6.36	614.64	2.44	23.60	0.36	70.17
Last 5	13:50:23	1500.01	19.86	6.36	614.92	2.12	23.70	0.30	68.53
Last 5	13:55:23	1800.02	19.84	6.44	616.29	2.02	23.70	0.22	65.02
Variance 0			0.35	0.08	0.41			-0.11	-10.33
Variance 1			0.05	0.00	0.28			-0.06	-1.64
Variance 2			-0.02	0.07	1.37			-0.08	-3.51

Notes

Collected at 14:05. Cloudy 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-19 14:46:40

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.25 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	60 ft
Latitude	33° 27' 27.71"		
Longitude	-84° -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	55 ft

Well Information:		Pumping Information:	
Well ID	YGWC-45	Final Pumping Rate	120 mL/min
Well diameter	2 in	Total System Volume	1.064164 L
Well Total Depth	60.00 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	10 in
Depth to Water	22.85 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	14:23:06	900.03	29.96	6.92	557.49	2.35	23.30	1.91	-56.60
Last 5	14:28:06	1200.02	23.97	6.62	577.68	2.20	23.40	0.45	-33.28
Last 5	14:33:06	1500.02	24.41	6.55	580.97	2.78	23.50	0.43	-16.96
Last 5	14:38:06	1800.02	24.43	6.52	576.87	3.37	23.60	0.28	-16.01
Last 5	14:43:08	2102.02	23.97	6.47	579.46	2.95	23.70	0.22	-14.66
Variance 0			0.44	-0.08	3.29			-0.02	16.32
Variance 1			0.03	-0.03	-4.10			-0.15	0.95
Variance 2			-0.46	-0.05	2.59			-0.06	1.35

Notes

Collected at 14:50. Sunny 90s. FB-1 here at 14:20

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 11:58:10

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 - Pond 1	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	74 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	369807		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	69 ft

Well Information:		Pumping Information:	
Well ID	YGWC-45	Final Pumping Rate	140 mL/min
Well diameter	2 in	Total System Volume	1.199302 L
Well Total Depth	74.00 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	15 in
Depth to Water	21.78 ft	Total Volume Pumped	6.3 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	11:36:05	1199.99	17.67	7.00	581.00	2.97	22.90	0.86	5.88
Last 5	11:41:05	1499.99	17.91	7.07	582.52	2.19	22.90	0.76	1.57
Last 5	11:46:05	1799.98	18.03	7.12	585.19	2.43	23.00	0.71	-2.37
Last 5	11:51:05	2099.98	18.16	7.16	586.36	2.50	23.00	0.54	-5.36
Last 5	11:56:05	2399.97	18.26	7.18	587.18	2.14	23.10	0.46	-7.38
Variance 0			0.12	0.05	2.67			-0.05	-3.94
Variance 1			0.13	0.04	1.18			-0.17	-2.99
Variance 2			0.09	0.03	0.81			-0.08	-2.02

Notes

Sampled at 12:00. Sunny 50s. EB-1 here at 11:40 - gloves

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-01 09:51:02

Project Information:		Pump Information:	
Operator Name	Michael Hutchinson	Pump Model/Type	Bladder
Company Name	AECOM	Tubing Type	poly
Project Name	Plant Yates	Tubing Diameter	0.17 in
Site Name	YGWC-46	Tubing Length	83.27 ft
Latitude	33º 27' 45.11"		
Longitude	-84º -54' -23.71"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	78.27 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	0.5616692 L
Well Total Depth	83.27 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	15.25 in
Depth to Water	46.55 ft	Total Volume Pumped	5.625 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%	+/- 10		+/- 0.2	+/- 10
Last 5	09:29:38	1500.02	21.62	6.27	1478.40	0.93	47.69	0.36	-21.92
Last 5	09:34:38	1800.02	21.60	6.27	1466.44	0.90	47.69	0.35	-21.42
Last 5	09:39:38	2100.02	21.67	6.26	1461.76	0.67	47.69	0.32	-18.89
Last 5	09:44:38	2399.99	21.47	6.23	1459.42	0.47	47.71	0.28	-10.54
Last 5	09:49:38	2699.98	21.34	6.19	1459.47	0.41	47.82	0.24	-0.19
Variance 0			0.07	-0.01	-4.68			-0.03	2.53
Variance 1			-0.20	-0.03	-2.33			-0.04	8.35
Variance 2			-0.13	-0.04	0.05			-0.04	10.35

Notes

Grab Samples
YGWC-46
Sample time

Product Name: Low-Flow System

Date: 2016-11-16 10:06:47

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 Phase 2 CCR	Tubing Diameter	.17 in
Site Name	Plant Yates	Tubing Length	86 ft
Latitude	33º 27' 46.14"		
Longitude	-84º -53' -52.68"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	130 mL/min
Well diameter	2 in	Total System Volume	0.7738544 L
Well Total Depth	83.20 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	47.7 ft	Total Volume Pumped	3.7 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	09:42:20	600.01	16.51	6.18	1567.03	2.73	48.60	0.49	17.45
Last 5	09:47:20	900.02	16.87	6.12	1576.45	1.86	48.70	0.42	19.88
Last 5	09:52:20	1200.01	17.10	6.08	1585.18	1.90	48.70	0.35	30.67
Last 5	09:57:20	1500.00	17.27	6.06	1584.90	1.63	48.70	0.33	35.02
Last 5	10:02:20	1799.99	17.43	6.05	1587.77	1.40	48.70	0.30	38.25
Variance 0			0.23	-0.04	8.73			-0.07	10.79
Variance 1			0.18	-0.01	-0.28			-0.03	4.35
Variance 2			0.16	-0.01	2.87			-0.03	3.22

Notes

Collected at 10:05. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-28 10:57:54

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	Bladder Pump
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	poly
Project Name	Plant Yates - Phase 2 CCR	Tubing Diameter	.17 in
Site Name	Plant Yates - Phase 2	Tubing Length	85 ft
Latitude	33º 27' 27.76"		
Longitude	-84º -53' -50.03"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	77 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.769391 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9 in
Depth to Water	47.89 ft	Total Volume Pumped	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	10:33:57	300.07	17.57	6.39	1417.55	5.36	48.40	2.68	-98.82
Last 5	10:38:57	600.01	17.95	6.34	1421.77	4.41	48.50	2.09	-107.70
Last 5	10:43:57	900.01	17.82	6.29	1446.78	3.29	48.60	2.27	-117.86
Last 5	10:48:57	1200.01	18.25	6.23	1459.00	2.88	48.60	2.28	-119.61
Last 5	10:53:57	1500.01	18.42	6.15	1479.69	2.63	48.70	2.30	-115.10
Variance 0			-0.12	-0.05	25.01			0.18	-10.16
Variance 1			0.43	-0.06	12.22			0.01	-1.75
Variance 2			0.16	-0.09	20.70			0.02	4.51

Notes

Collected at 1055. Cloudy , 55.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-27 12:18:54

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 Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates	Tubing Length	85 ft
Latitude	33º 27' 46.14"		
Longitude	-84º -53' -52.68"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	160 mL/min
Well diameter	2 in	Total System Volume	2.336085 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	24 in
Depth to Water	46.78 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	11:54:32	600.01	17.66	6.09	1510.24	1.04	48.50	0.19	18.74
Last 5	11:59:32	900.01	17.66	6.06	1507.11	0.85	48.60	0.19	23.12
Last 5	12:04:32	1200.00	17.71	6.03	1507.05	0.97	48.70	0.21	27.71
Last 5	12:09:32	1500.00	17.56	6.02	1507.11	0.75	48.70	0.21	31.76
Last 5	12:14:32	1800.00	17.54	6.01	1502.26	0.81	48.70	0.21	34.98
Variance 0			0.05	-0.02	-0.06			0.01	4.59
Variance 1			-0.15	-0.02	0.07			0.00	4.05
Variance 2			-0.02	-0.01	-4.85			0.00	3.22

Notes

Collected at 12:20. Cloudy 50s. DUP -1 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-08 15:06:56

Project Information:		Pump Information:	
Operator Name	J Berisford	Pump Model/Type	Bladder
Company Name	Atlantic Coast Consulting, Inc.	Tubing Type	poly
Project Name	Plant Yates - Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase 2	Tubing Length	83 ft
Latitude	33º 27' 52.34"		
Longitude	-84º -54' -22.44"		
Sonde SN	466058		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	170 mL/min
Well diameter	2 in	Total System Volume	2.287648 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	46.93 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	14:45:28	900.01	21.64	6.17	1448.19	3.08	47.90	0.91	94.08
Last 5	14:50:28	1200.00	21.60	6.13	1447.15	2.52	47.90	0.60	93.81
Last 5	14:55:28	1500.01	21.64	6.11	1443.04	2.27	47.90	0.43	93.28
Last 5	15:00:28	1800.01	21.64	6.10	1439.98	1.70	48.00	0.35	93.17
Last 5	15:05:28	2099.99	21.64	6.10	1438.16	1.27	48.00	0.32	92.87
Variance 0			0.04	-0.01	-4.11			-0.17	-0.53
Variance 1			-0.00	-0.01	-3.07			-0.08	-0.11
Variance 2			0.01	-0.01	-1.82			-0.03	-0.30

Notes

Sunny, sample time- 1505

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-13 14:20:24

Project Information:		Pump Information:	
Operator Name	Ryan Walker	Pump Model/Type	QED
Company Name	Atlantic Coast Consulting	Tubing Type	poly
Project Name	Plant Yates AP - Phase 2 CCR	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase II	Tubing Length	88 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	408206		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	140 mL/min
Well diameter	2 in	Total System Volume	2.301241 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	15 in
Depth to Water	45.36 ft	Total Volume Pumped	5.8 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	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	13:53:21	900.02	22.62	6.17	1277.04	1.58	46.50	0.46	151.79
Last 5	13:58:21	1200.02	22.30	6.16	1261.29	1.96	46.60	0.33	148.98
Last 5	14:03:21	1500.02	22.21	6.13	1249.43	1.96	46.70	0.27	144.62
Last 5	14:08:21	1800.02	21.95	6.10	1235.73	1.24	46.70	0.24	141.59
Last 5	14:13:21	2100.02	21.87	6.07	1226.90	1.16	46.70	0.23	139.08
Variance 0			-0.10	-0.03	-11.86			-0.06	-4.37
Variance 1			-0.26	-0.03	-13.70			-0.03	-3.03
Variance 2			-0.09	-0.03	-8.83			-0.01	-2.51

Notes

Collected at 14:20. Sunny 80s. FB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-11 11:40:14

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.375 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	84 ft
Latitude	33º 27' 27.71"		
Longitude	-84º -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	190 mL/min
Well diameter	2 in	Total System Volume	2.309366 L
Well Total Depth	83.0 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	15 in
Depth to Water	46.97 ft	Total Volume Pumped	20 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	11:18:23	4799.95	22.13	5.93	1141.51	7.64	48.20	0.28	96.44
Last 5	11:23:23	5099.95	22.16	5.93	1138.87	6.86	48.20	0.27	96.80
Last 5	11:28:23	5399.94	22.27	5.93	1139.73	5.69	48.20	0.27	96.93
Last 5	11:33:23	5699.94	22.28	5.93	1132.24	5.07	48.20	0.26	97.52
Last 5	11:38:23	5999.94	22.36	5.93	1135.76	4.81	48.20	0.27	97.74
Variance 0			0.11	-0.00	0.86			-0.00	0.13
Variance 1			0.01	-0.00	-7.49			-0.00	0.59
Variance 2			0.08	-0.00	3.52			0.01	0.22

Notes

Collected at 11:40. Sunny 70s

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-04 13:54:30

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.25 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	83 ft
Latitude	33º 27' 27.71"		
Longitude	-84º -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	160 mL/min
Well diameter	2 in	Total System Volume	1.286177 L
Well Total Depth	83.00 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	19 in
Depth to Water	47.28 ft	Total Volume Pumped	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	13:31:22	1800.01	18.08	6.06	1040.67	8.15	48.60	0.22	97.84
Last 5	13:36:22	2099.99	17.72	6.03	1033.99	7.03	48.70	0.20	99.19
Last 5	13:41:22	2399.99	17.83	6.02	1028.21	6.22	48.70	0.21	99.00
Last 5	13:46:22	2699.98	17.94	6.01	1021.90	5.02	48.80	0.22	99.28
Last 5	13:51:22	2999.98	17.99	6.01	1016.46	4.81	48.80	0.22	99.00
Variance 0			0.10	-0.01	-5.77			0.01	-0.19
Variance 1			0.12	-0.01	-6.31			0.01	0.28
Variance 2			0.05	-0.00	-5.45			-0.00	-0.28

Notes

Collected at 15:55. Cloudy 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-19 11:57:08

Project Information:		Pump Information:	
Operator Name	Chris Parker	Pump Model/Type	QED
Company Name	ACC	Tubing Type	Bladder
Project Name	Plant Yates - Phase 2	Tubing Diameter	.25 in
Site Name	Plant Yates - Phase 2 CCR	Tubing Length	83 ft
Latitude	33° 27' 27.71"		
Longitude	-84° -53' -49.99"		
Sonde SN	466086		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.286177 L
Well Total Depth	83.00 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9 in
Depth to Water	48.17 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	11:35:48	600.02	24.24	6.16	937.65	3.04	48.70	3.61	-10.37
Last 5	11:40:48	900.02	22.31	6.13	929.93	3.12	48.90	1.11	16.95
Last 5	11:45:50	1202.01	21.74	6.12	931.75	3.18	49.00	0.58	42.43
Last 5	11:50:50	1502.00	21.33	6.10	929.23	2.97	49.00	0.46	53.12
Last 5	11:55:50	1801.99	21.49	6.09	929.32	2.64	49.00	0.39	57.58
Variance 0			-0.56	-0.01	1.82			-0.53	25.48
Variance 1			-0.42	-0.02	-2.52			-0.11	10.69
Variance 2			0.16	-0.01	0.08			-0.07	4.46

Notes

Collected at 12:00. Sunny 80s

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 13:13:11

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 - Pond 1	Tubing Diameter	.25 in
Site Name	Plant Yates	Tubing Length	83 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	369807		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	78 ft

Well Information:		Pumping Information:	
Well ID	YGWC-46	Final Pumping Rate	180 mL/min
Well diameter	2 in	Total System Volume	1.286177 L
Well Total Depth	83 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	46.62 ft	Total Volume Pumped	7.2 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	12:49:55	900.00	18.92	6.31	924.54	6.01	47.40	1.22	128.21
Last 5	12:54:55	1199.99	19.02	6.25	923.13	5.32	47.40	0.91	130.59
Last 5	12:59:55	1499.99	18.97	6.23	924.78	4.40	47.50	0.67	131.43
Last 5	13:04:55	1799.98	19.22	6.21	923.52	3.37	47.50	0.55	130.83
Last 5	13:09:55	2099.96	19.23	6.20	925.55	3.18	47.50	0.48	129.73
Variance 0			-0.05	-0.03	1.65			-0.23	0.84
Variance 1			0.25	-0.02	-1.25			-0.13	-0.60
Variance 2			0.02	-0.01	2.02			-0.06	-1.09

Notes

Sampled at 13:15. Sunny 60s. DUP 1 here.

Grab Samples

APPENDIX C

STATISTICAL ANALYSES

Prediction Limit

Plant Yates Client: Southern Company Data: Yates Ash Pond 1 Printed 6/27/2019, 5:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	**YGWC-44**	**0.01786**	**n/a**	**3/27/2019**	**0.57**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Boron (mg/L)	**YGWC-45**	**0.01786**	**n/a**	**3/27/2019**	**0.33**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Boron (mg/L)	**YGWC-46**	**0.01786**	**n/a**	**3/27/2019**	**0.89**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**YGWC-44**	**22.55**	**n/a**	**3/27/2019**	**27.9**	**Yes**	**9**	**11.11**	**No**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**YGWC-45**	**22.55**	**n/a**	**3/27/2019**	**48.8**	**Yes**	**9**	**11.11**	**No**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**YGWC-46**	**22.55**	**n/a**	**3/27/2019**	**54.2**	**Yes**	**9**	**11.11**	**No**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**YGWC-44**	**7.141**	**n/a**	**3/27/2019**	**14**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	YGWC-45	7.141	n/a	3/27/2019	4.6	No	9	0	No	0.002505	Param Inter 1 of 2
Chloride (mg/L)	**YGWC-46**	**7.141**	**n/a**	**3/27/2019**	**20.9**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
pH (S.U.)	**YGWC-44**	**5.908**	**5.289**	**3/27/2019**	**6.1**	**Yes**	**8**	**0**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (S.U.)	**YGWC-45**	**5.908**	**5.289**	**3/27/2019**	**7.18**	**Yes**	**8**	**0**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (S.U.)	**YGWC-46**	**5.908**	**5.289**	**3/27/2019**	**6.2**	**Yes**	**8**	**0**	**No**	**0.001253**	**Param Inter 1 of 2**
Sulfate (mg/L)	YGWC-44	183.3	n/a	3/27/2019	146	No	9	0	No	0.002505	Param Inter 1 of 2
Sulfate (mg/L)	**YGWC-45**	**183.3**	**n/a**	**3/27/2019**	**188**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Sulfate (mg/L)	**YGWC-46**	**183.3**	**n/a**	**3/27/2019**	**437**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	YGWC-44	338.3	n/a	3/27/2019	302	No	9	0	sqrt(x)	0.002505	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**YGWC-45**	**338.3**	**n/a**	**3/27/2019**	**383**	**Yes**	**9**	**0**	**sqrt(x)**	**0.002505**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**YGWC-46**	**338.3**	**n/a**	**3/27/2019**	**641**	**Yes**	**9**	**0**	**sqrt(x)**	**0.002505**	**Param Inter 1 of 2**

Prediction Limit

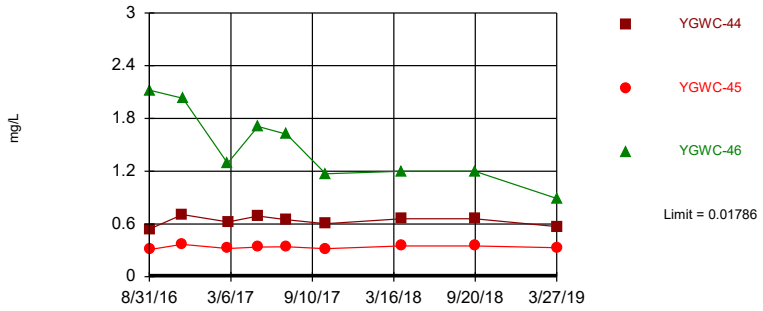
Plant Yates Client: Southern Company Data: Yates Ash Pond 1 Printed 6/27/2019, 5:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	**YGWC-44**	**0.01786**	**n/a**	**3/27/2019**	**0.57**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Boron (mg/L)	**YGWC-45**	**0.01786**	**n/a**	**3/27/2019**	**0.33**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Boron (mg/L)	**YGWC-46**	**0.01786**	**n/a**	**3/27/2019**	**0.89**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**YGWC-44**	**22.55**	**n/a**	**3/27/2019**	**27.9**	**Yes**	**9**	**11.11**	**No**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**YGWC-45**	**22.55**	**n/a**	**3/27/2019**	**48.8**	**Yes**	**9**	**11.11**	**No**	**0.002505**	**Param Inter 1 of 2**
Calcium (mg/L)	**YGWC-46**	**22.55**	**n/a**	**3/27/2019**	**54.2**	**Yes**	**9**	**11.11**	**No**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**YGWC-44**	**7.141**	**n/a**	**3/27/2019**	**14**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Chloride (mg/L)	**YGWC-46**	**7.141**	**n/a**	**3/27/2019**	**20.9**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
pH (S.U.)	**YGWC-44**	**5.908**	**5.289**	**3/27/2019**	**6.1**	**Yes**	**8**	**0**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (S.U.)	**YGWC-45**	**5.908**	**5.289**	**3/27/2019**	**7.18**	**Yes**	**8**	**0**	**No**	**0.001253**	**Param Inter 1 of 2**
pH (S.U.)	**YGWC-46**	**5.908**	**5.289**	**3/27/2019**	**6.2**	**Yes**	**8**	**0**	**No**	**0.001253**	**Param Inter 1 of 2**
Sulfate (mg/L)	**YGWC-45**	**183.3**	**n/a**	**3/27/2019**	**188**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Sulfate (mg/L)	**YGWC-46**	**183.3**	**n/a**	**3/27/2019**	**437**	**Yes**	**9**	**0**	**No**	**0.002505**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**YGWC-45**	**338.3**	**n/a**	**3/27/2019**	**383**	**Yes**	**9**	**0**	**sqrt(x)**	**0.002505**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**YGWC-46**	**338.3**	**n/a**	**3/27/2019**	**641**	**Yes**	**9**	**0**	**sqrt(x)**	**0.002505**	**Param Inter 1 of 2**

Exceeds Limit: YGWC-44, YGWC-45, YGWC-46

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=0.01392, Std. Dev.=0.001699, n=9. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8657, critical = 0.764. Kappa = 2.315 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Boron Analysis Run 6/27/2019 5:00 PM View: Assessment Evaluation

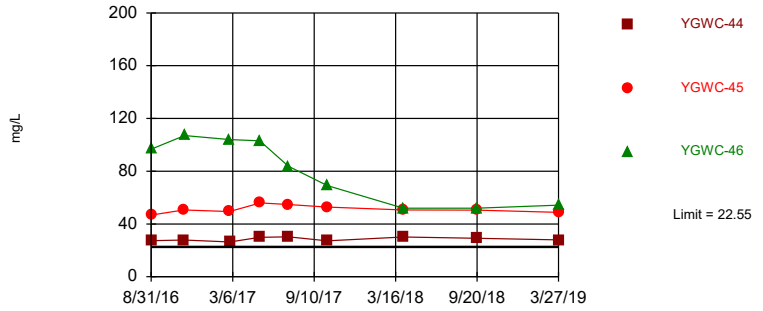
Plant Yates Client: Southern Company Data: Yates Ash Pond 1

Sanitas™ v.9.6.18 Sanitas software licensed to ACC. UG

Exceeds Limit: YGWC-44, YGWC-45, YGWC-46

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=14.56, Std. Dev.=3.453, n=9, 11.11% NDs. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9205, critical = 0.764. Kappa = 2.315 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Calcium Analysis Run 6/27/2019 5:00 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

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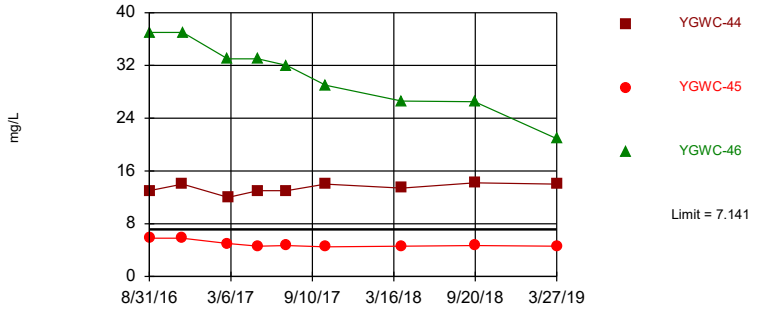
Exceeds Limit: YGWC-44, YGWC-46

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.3, Std. Dev.=0.7953, n=9. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9449, critical = 0.764. Kappa = 2.315 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Chloride Analysis Run 6/27/2019 5:00 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

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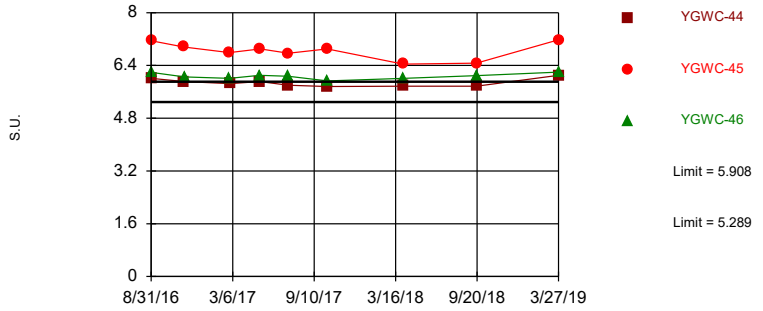
Exceeds Limits: YGWC-44, YGWC-45, YGWC-46

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=5.599, Std. Dev.=0.1281, n=8. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8447, critical = 0.749. Kappa = 2.416 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001253. Comparing 3 points to limit.

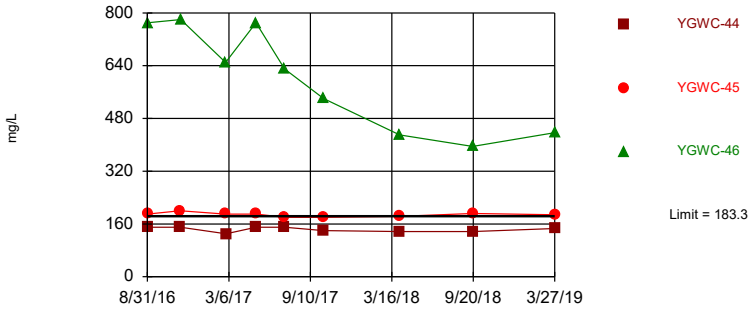
Constituent: pH Analysis Run 6/27/2019 5:00 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

Exceeds Limit: YGWC-45, YGWC-46

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=109.2, Std. Dev.=32.02, n=9. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.954, critical = 0.764. Kappa = 2.315 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Sulfate Analysis Run 6/27/2019 5:00 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

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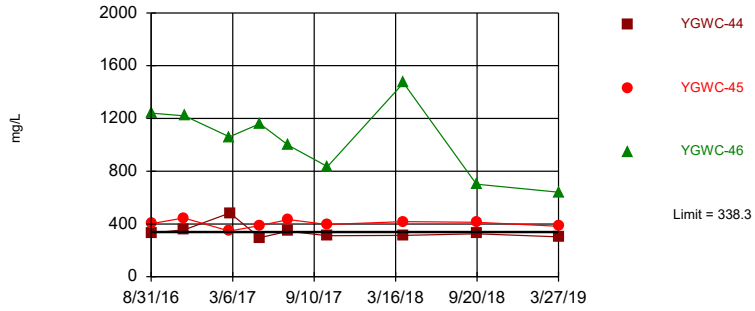
Exceeds Limit: YGWC-45, YGWC-46

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation): Mean=14.32, Std. Dev.=1.759, n=9. Insufficient data to test for seasonality; not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7764, critical = 0.764. Kappa = 2.315 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.002505. Comparing 3 points to limit.

Constituent: Total Dissolved Solids Analysis Run 6/27/2019 5:00 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 6/27/2019 5:01 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWC-46
8/30/2016	0.0166 (J)			
8/31/2016		0.541	0.308	
9/1/2016				2.12
11/14/2016	0.0166 (J)		0.368	
11/15/2016		0.706		
11/16/2016				2.03
2/24/2017	0.0145 (J)			
2/27/2017			0.321	1.29
2/28/2017		0.623		
5/8/2017	0.0141 (J)	0.69		1.71
5/9/2017			0.338	
7/11/2017	0.0131 (J)			
7/13/2017		0.649	0.34	1.62
10/10/2017	0.0124 (J)	0.603	0.319	
10/11/2017				1.17
4/2/2018	0.013 (J)			
4/3/2018			0.35	
4/4/2018		0.66		1.2
9/19/2018	0.012 (J)	0.66	0.35	1.2
3/27/2019	0.013 (J)	0.57	0.33	0.89

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 6/27/2019 5:01 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWC-46
8/30/2016	20.9			
8/31/2016		27.3	46.7	
9/1/2016				96.8
11/14/2016	18.6		50.6	
11/15/2016		27.8		
11/16/2016				107
2/24/2017	16.1			
2/27/2017			49.4	104
2/28/2017		26.4		
5/8/2017	14.6	29.9		103
5/9/2017			56	
7/11/2017	14.3			
7/13/2017		30.2	54.8	83.7
10/10/2017	12.1	27.2	52.8	
10/11/2017				69
4/2/2018	<25			
4/3/2018			50.6	
4/4/2018		30.1		51.9
9/19/2018	11.1 (J)	29.2	50.5	51.9
3/27/2019	10.8 (J)	27.9	48.8	54.2

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:01 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWC-46
8/30/2016	5.2			
8/31/2016		13	5.8	
9/1/2016				37
11/14/2016	6.4		5.8	
11/15/2016		14		
11/16/2016				37
2/24/2017	5.5			
2/27/2017			5	33
2/28/2017		12		
5/8/2017	5.8	13		33
5/9/2017			4.6	
7/11/2017	5.8			
7/13/2017		13	4.7	32
10/10/2017	5.9	14	4.5	
10/11/2017				29
4/2/2018	4.8			
4/3/2018			4.6	
4/4/2018		13.4		26.6
9/19/2018	4	14.2	4.7	26.5
3/27/2019	4.3	14	4.6	20.9

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:01 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWC-46
8/30/2016	5.75			
8/31/2016		6.01	7.15	
9/1/2016				6.19
11/14/2016	5.59		6.96	
11/15/2016		5.91		
11/16/2016				6.05
2/24/2017	5.49			
2/27/2017			6.79	6.01
2/28/2017		5.85		
5/8/2017	5.58	5.91		6.1
5/9/2017			6.9	
7/11/2017	5.58			
7/13/2017		5.8	6.77	6.07
10/10/2017	5.49	5.76	6.9	
10/11/2017				5.93
4/2/2018	6.3 (o)			
4/3/2018			6.44	
4/4/2018		5.77		6.01
9/19/2018	5.48	5.77	6.47	6.09
3/27/2019	5.83	6.1	7.18	6.2

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/27/2019 5:01 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWC-46
8/30/2016	160			
8/31/2016		150	190	
9/1/2016				770
11/14/2016	150		200	
11/15/2016		150		
11/16/2016				780
2/24/2017	120			
2/27/2017			190	650
2/28/2017		130		
5/8/2017	120	150		770
5/9/2017			190	
7/11/2017	110			
7/13/2017		150	180	630
10/10/2017	93	140	180	
10/11/2017				540
4/2/2018	88.8			
4/3/2018			183	
4/4/2018		137		430
9/19/2018	75	137	192	395
3/27/2019	65.9	146	188	437

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/27/2019 5:01 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWC-46
8/30/2016	319			
8/31/2016		332	402	
9/1/2016				1240
11/14/2016	280		445	
11/15/2016		356		
11/16/2016				1220
2/24/2017	162			
2/27/2017			346	1060
2/28/2017		483		
5/8/2017	194	296		1160
5/9/2017			388	
7/11/2017	193			
7/13/2017		345	433	996
10/10/2017	175	311	396	
10/11/2017				835
4/2/2018	192			
4/3/2018			418	
4/4/2018		313		1470
9/19/2018	186	326	413	702
3/27/2019	170	302	383	641

Prediction Limit

Plant Yates Client: Southern Company Data: Yates Ash Pond 1 Printed 6/27/2019, 4:56 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	YGWA-47	0.2118	n/a	3/27/2019	0.081	No	8	37.5	No	0.002505	Param Intra 1 of 2
Fluoride (mg/L)	YGWC-44	0.15	n/a	3/27/2019	0.15ND	No	8	62.5	n/a	0.02144	NP Intra (NDs) 1 of 2
Fluoride (mg/L)	YGWC-45	0.7874	n/a	3/27/2019	0.18	No	8	25	sqrt(x)	0.002505	Param Intra 1 of 2
Fluoride (mg/L)	YGWC-46	0.3387	n/a	3/27/2019	0.12	No	8	37.5	No	0.002505	Param Intra 1 of 2

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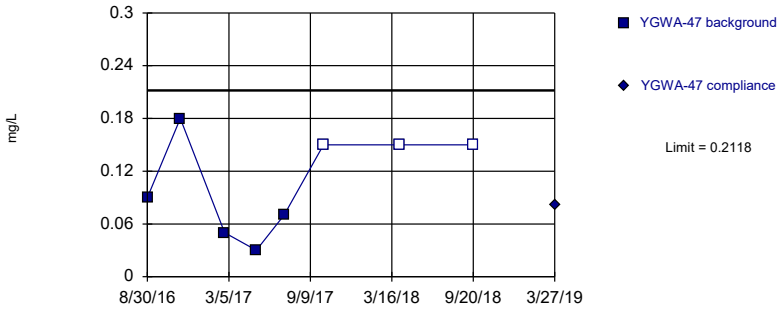
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.084, Std. Dev.=0.052, n=8, 37.5% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9003, critical = 0.749. Kappa = 2.458 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Fluoride Analysis Run 6/27/2019 4:56 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

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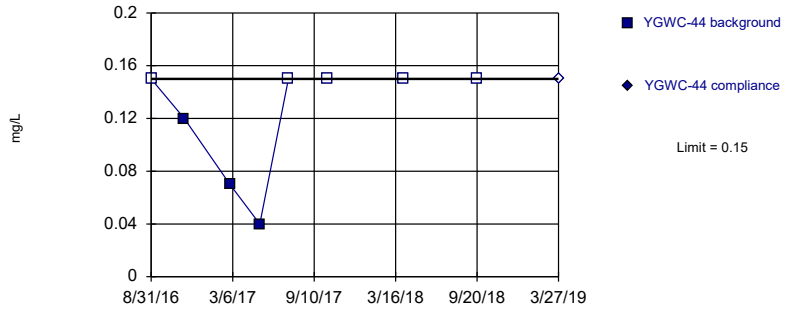
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Fluoride Analysis Run 6/27/2019 4:56 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

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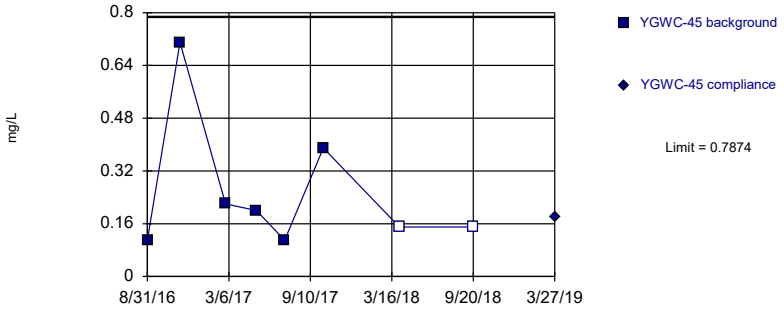
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.4796, Std. Dev.=0.1659, n=8, 25% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8196, critical = 0.749. Kappa = 2.458 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Fluoride Analysis Run 6/27/2019 4:56 PM View: Assessment Evaluation

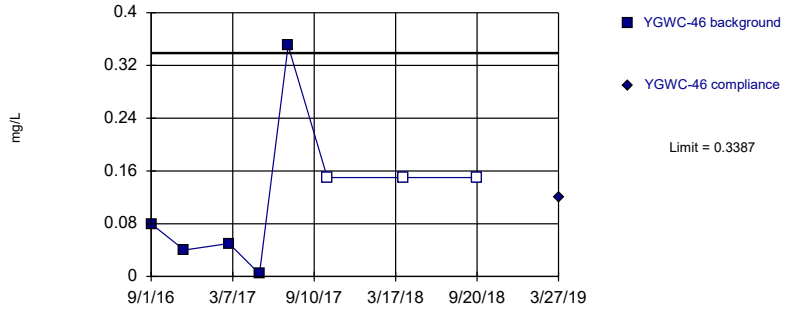
Plant Yates Client: Southern Company Data: Yates Ash Pond 1

Sanitas™ v.9.6.18 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=0.08181, Std. Dev.=0.1045, n=8, 37.5% NDs. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8607, critical = 0.749. Kappa = 2.458 (c=7, w=3, 1 of 2, event alpha = 0.05132). Report alpha = 0.002505.

Constituent: Fluoride Analysis Run 6/27/2019 4:56 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 4:56 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWA-47	YGWA-47
8/30/2016	0.09 (J)	
11/14/2016	0.18 (J)	
2/24/2017	0.05 (J)	
5/8/2017	0.03 (J)	
7/11/2017	0.07 (J)	
10/10/2017	<0.3	
4/2/2018	<0.3	
9/19/2018	<0.3	
3/27/2019		0.081 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 4:56 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWC-44	YGWC-44
8/31/2016	<0.3	
11/15/2016	0.12 (J)	
2/28/2017	0.07 (J)	
5/8/2017	0.04 (J)	
7/13/2017	<0.3	
10/10/2017	<0.3	
4/4/2018	<0.3	
9/19/2018	<0.3	
3/27/2019		<0.3

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 4:56 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWC-45	YGWC-45
8/31/2016	0.11 (J)	
11/14/2016	0.71	
2/27/2017	0.22 (J)	
5/9/2017	0.2 (J)	
7/13/2017	0.11 (J)	
10/10/2017	0.39	
4/3/2018	<0.3	
9/19/2018	<0.3	
3/27/2019		0.18 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 4:56 PM View: Assessment Evaluation

Plant Yates Client: Southern Company Data: Yates Ash Pond 1

	YGWC-46	YGWC-46
9/1/2016	0.08 (J)	
11/16/2016	0.04 (J)	
2/27/2017	0.05 (J)	
5/8/2017	0.004 (J)	
7/13/2017	0.35	
10/11/2017	<0.3	
4/4/2018	<0.3	
9/19/2018	<0.3	
3/27/2019		0.12 (J)

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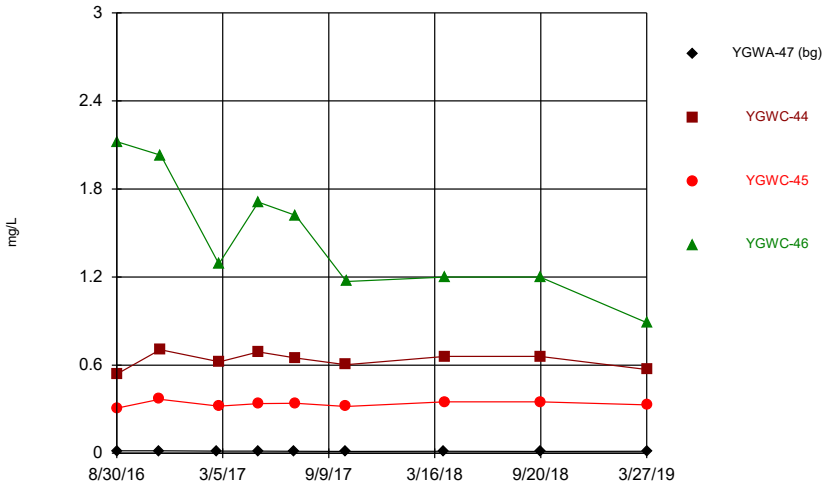
Time Series



Constituent: Boron Analysis Run 4/18/2019 5:48 PM View: AP-1 Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 1

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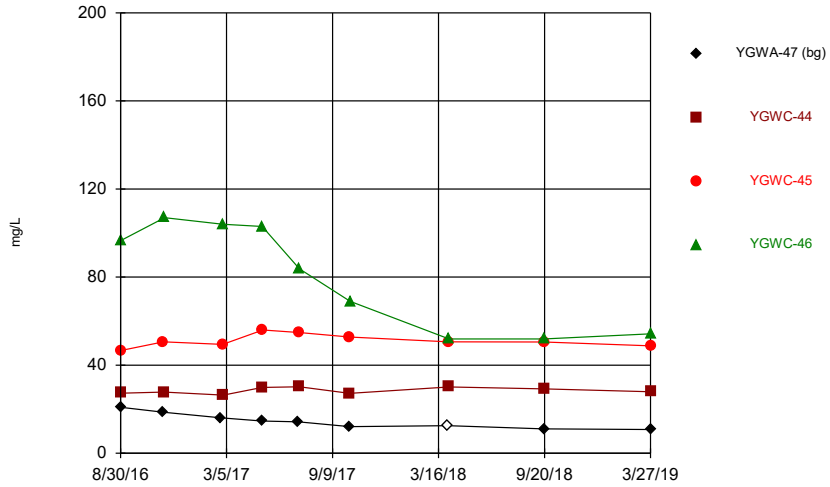
Hollow symbols indicate censored values.

Time Series



Constituent: Calcium Analysis Run 4/18/2019 5:48 PM View: AP-1 Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 1

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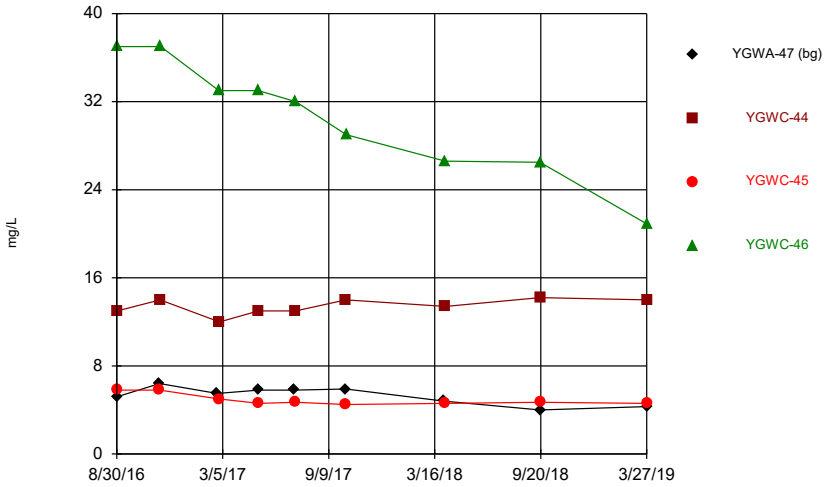
Time Series



Constituent: Chloride Analysis Run 4/18/2019 5:48 PM View: AP-1 Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 1

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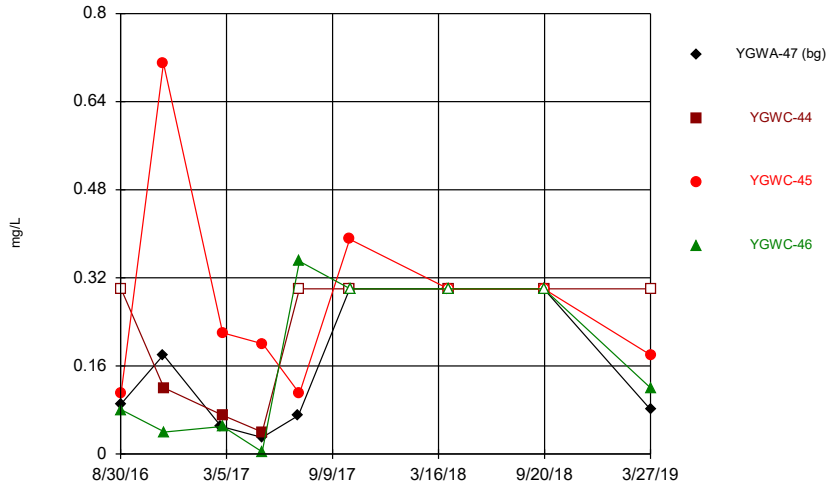
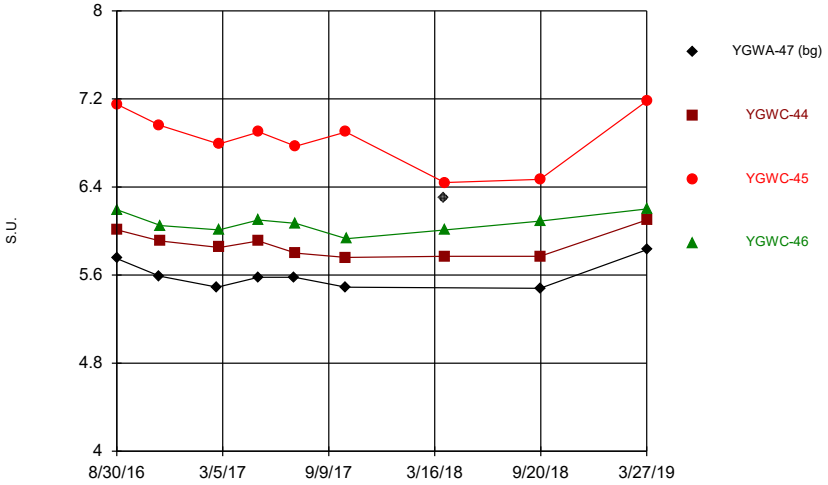
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 4/18/2019 5:48 PM View: AP-1 Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 1

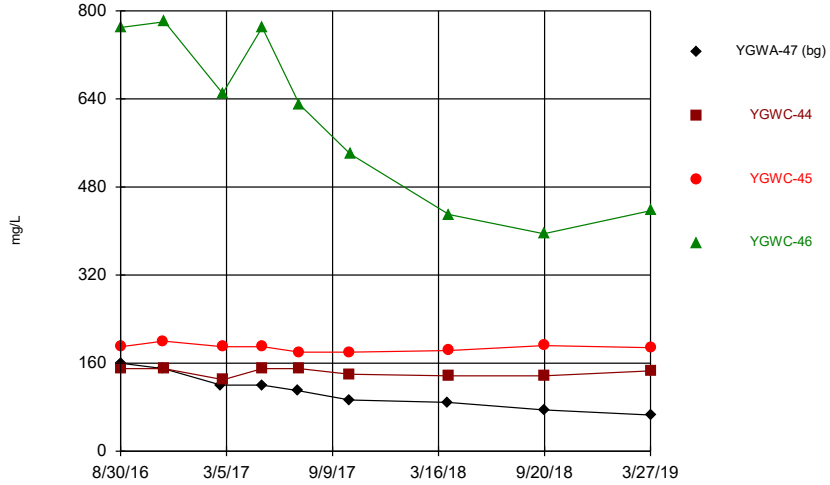
Time Series



Constituent: pH Analysis Run 4/18/2019 5:48 PM View: AP-1 Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 1

Sanitas™ v.9.6.05 Sanitas software licensed to ACC. UG

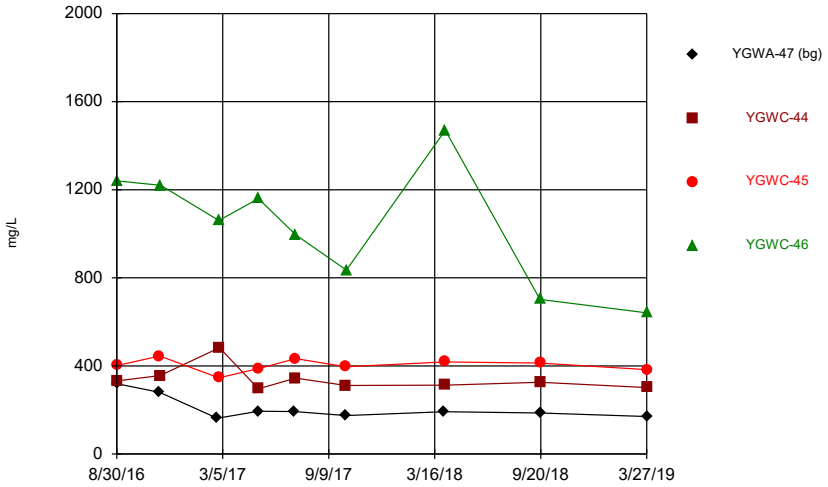
Time Series



Constituent: Sulfate Analysis Run 4/18/2019 5:48 PM View: AP-1 Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 1

Sanitas™ v.9.6.05 Sanitas software licensed to ACC. UG

Time Series



Constituent: Total Dissolved Solids Analysis Run 4/18/2019 5:48 PM View: AP-1 Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 1