

Prepared for: Georgia Power Company

2017 Annual Groundwater Monitoring and Corrective Action Report

Plant Hammond Ash Ponds 1 & 2 (AP-1 and AP-2)

January 31, 2018

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Georgia Power Company

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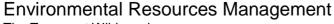
January 31, 2018

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CERTIFICATION STATEMENT

This 2017 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company - Plant Hammond – Ash Pond 1 and 2 (AP-1 and AP-2) has been prepared to comply with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) by a licensed Professional Engineer with Environmental Resources Management-Southeast, Inc. (ERM).

CONSULTANT

Signature:

Date: 1/3/12

TABLE OF CONTENTS

1.0	INTR	RODUCTION	1
	1.1	SITE LOCATION AND DESCRIPTION	1
		1.1.1 Regional Geology	1
		1.1.2 Site Geology and Hydrogeology	1
	1.2	GROUNDWATER MONITORING SYSTEM	2
2.0	GRO	UNDWATER MONITORING ACTIVITIES	2
	2.1	MONITORING WELL INSTALLATION AND MAINTENANCE	2
	2.2	DETECTION MONITORING	3
		2.2.1 Background Monitoring	3
		2.2.2 Initial Detection Monitoring	3
3.0	SAM	PLE METHODOLOGY & ANALYSES	3
	3.1	GROUNDWATER ELEVATION MEASUREMENT	3
	3.2	GROUNDWATER GRADIENT AND FLOW VELOCITY	4
	3.3	GROUNDWATER SAMPLING	4
	3.4	LABORATORY ANALYSES	5
	3.5	QUALITY ASSURANCE & QUALITY CONTROL	5
4.0	STA	TISTICAL ANALYSIS	6
	4.1	STATISTICAL METHOD	6
	4.2	STATISTICAL ANALYSES RESULTS	7
	4.3	APPENDIX IV BACKGROUND DATA	8
5.0	MON	IITORING PROGRAM STATUS	8
6.0	CON	ICLUSIONS & FUTURE ACTIONS	8
7.0	REF	ERENCES	8

FIGURES

- 1. Site Location Map
- 2. Site Plan and Well Location Map
- 3. Potentiometric Surface Contour Map October 2017

TABLES

- 1. Monitoring Well Network Summary
- 2. Groundwater Sampling Event Summary
- 3. Summary of Historical Groundwater Elevations
- 4. Groundwater Flow Velocity Calculations October 2017
- 5. Plant Hammond Ash Pond 1 and Ash Pond 2 Analytical Data Summary

APPENDICES

- A. Analytical Data Reports
- B. Statistical Analyses

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015), this 2017 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (GPC's) Plant Hammond (the site), Ash Pond 1 (AP-1) and Ash Pond 2 (AP-2) and satisfy the requirements of §257.90(e). Groundwater monitoring and reporting for the site will be performed in accordance with the requirements §257.90 through §257.98.

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

1.1 SITE LOCATION AND DESCRIPTION

The site is located in Floyd County, approximately 10 miles west of Rome, Georgia (Figure 1, Site Location Map). The plant property is located on the north bank of the Coosa River. AP-1 (35 acres) and AP-2 (21 acres) are currently in use and monitored as separate CCR Units. Both ponds are located in the central portion of the property (Figure 2, Site Plan and Well Location Map).

1.1.1 Regional Geology

Floyd County is located in the Valley and Ridge Physiographic Province of Georgia which is characterized by well-defined, long and linear ridges and valleys that generally trend to the northeast-southwest. The Valley and Ridge province contains a sequence of folded and faulted sedimentary rocks of Paleozoic age, which form a series of generally parallel valleys separated by steep to well-rounded ridges (Clark and Zisa, 1976).

1.1.2 Site Geology and Hydrogeology

The Coosa River forms the southern border of the property and flows towards the east. The site occupies a generally flat topographic area with an approximate elevation between 570 feet and 600 feet above mean sea level (MSL), and natural surface water drainage is generally towards the south. Two (2) smaller tributaries bisect the central and western portions of the property and the eastern property boundary is formed by Cabin Creek which drains into the Coosa River.

Boring logs indicate AP-1 and AP-2 are underlain by calcareous shale and limestone interbedded with shale and shaley limestone. The shale is weathered, thinly bedded, poorly jointed, and is locally interlayered with red silty shale and limestone. The limestone observed interlayered with the shale is slightly weathered, finely crystalline, medium to thick bedded and poorly jointed, with evidence of chemical dissolution occurring along bedding and joint planes.

Overburden at the site consists of alluvial and residual soils. Overburden soils are described as clay/clayey, silt/clayey-sand, and silt with some coarser material.

The site is underlain by a regional unconfined groundwater aquifer that occurs within the overburden. Groundwater recharge at the site is from infiltration of precipitation. Groundwater occurring in bedrock below the site is controlled by the degree of enhanced secondary permeability. In general, groundwater occurring in the bedrock is generally a result of water infiltrating through areas in the overburden where enhanced permeability exists.

1.2 GROUNDWATER MONITORING SYSTEM

Pursuant to §257.91, GPC installed groundwater monitoring systems to monitor groundwater within the uppermost aquifer at AP-1 and AP-2. The monitoring systems are designed to monitor groundwater passing the waste boundary of AP-1 and AP-2 within the uppermost aquifer. Well locations were designed to serve as upgradient or downgradient monitoring points based on groundwater flow direction (Table 1, Monitoring Well Network Summary).

2.0 GROUNDWATER MONITORING ACTIVITIES

As required by §257.90(e), the following subsections describe monitoring-related activities performed during the preceding year. Since this is the first *Annual Groundwater Monitoring and Corrective Action Report*, it also describes activities performed prior to 2017 to establish the groundwater monitoring program. All groundwater sampling was performed in accordance with §257.93. Samples were collected from each well in the PE-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 AP-1 and AP-2.

2.1 MONITORING WELL INSTALLATION AND MAINTENANCE

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

Seven (7) monitoring wells (HGWA-1, HGWA-4, HGWC-14, HGWC-15, HGWC-16, HGWC-17, and HGWC-18) and (10) piezometers (MW-1, MW-5, MW-6, MW-7, MW-8, MW-9, MW-12, MW-16, MW-17, and MW-18) were installed between October and December 2014. Eleven (11) additional monitoring wells (HGWA-2, HGWA-3, HGWC-5, HGWC-6, HGWC-7, HGWC-8, HGWC-9, HGWC-10, HGWC-11, HGWC-12, and HGWC-3) and one (1) additional piezometer (AP1A-1) were installed in December 2015. Monitoring well and piezometer locations are shown on Figure 2.

Wells HWGA-1, HGWA-2, HGWA-3, HGWC-7, HGWC-8, HGWC-9, HGWC-10, HGWC-11, HGWC-12, and HGWC-13 monitor AP-1. Wells HWGA-1, HGWA-2, HGWA-3, HGWA-4, HGWA-5, HGWA-6, HGWC-14, HGWC-15, HGWC-16, HGWC-17 and HGWC-18 monitor AP-2.

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

2.2 DETECTION MONITORING

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

2.2.1 Background Monitoring

A minimum of 8 independent samples were collected from each monitoring well within the well network and analyzed for Appendix III and IV constituents as part of the background monitoring period prior to October 17, 2017. Pursuant to §257.90(e)(3), data reports for the background sampling events are included in Appendix A, Analytical Data Reports. Background monitoring event analytical data is summarized in Table 5, Plant Hammond Ash Pond 1 and Ash Pond 2 Analytical Data Summary.

2.2.2 Initial Detection Monitoring

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

3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to conduct groundwater monitoring at AP-1 and AP-2.

3.1 GROUNDWATER ELEVATION MEASUREMENT

Prior to each sampling event, groundwater elevations were recorded from piezometers and each well in the well network at AP-1 and AP-2. Groundwater elevations recorded during the background and detection monitoring events are summarized in Table 3, Summary of Historical Groundwater Elevations. Groundwater elevation data was used to develop a potentiometric surface elevation contour map (Figure 3, Potentiometric Surface Contour Map – October 2017). The general direction of groundwater flow across the site is toward the south. The groundwater

flow pattern observed during the October 2017 detection monitoring event is consistent with recordings made during the background monitoring period.

3.2 GROUNDWATER GRADIENT AND FLOW VELOCITY

The groundwater flow velocity at AP-1 and AP-2 was calculated using a derivation of Darcy's Law. Specifically,

$$V = \frac{K*i}{n_e} \qquad \qquad \text{Where:}$$

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

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

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

$$n_e = \qquad \text{Effective porosity}$$

Hydraulic conductivity measurements were calculated from slug test data collected in a subset of AP-1 and AP-2 wells. Results were broadly grouped based on the lithology in which the well screens are completed. At AP-1, hydraulic conductivities for wells screened in the alluvium and/or residuum ranged from 1.07 ft/day to 3.08 ft/day, with an average value of 1.85 ft/day. At AP-2, hydraulic conductivities for wells screened in the alluvium and/or residuum ranged from 0.06 ft/day to 2.81 ft/day, with an average value of 0.47.

The hydraulic gradient was calculated between wells HGWC-7 and MW-5 (AP-1) and HGWA-5 and MW-12 (AP-2). An estimated effective porosity of 0.30 is used for the flow rate calculations for wells screened in silty sand soils and clay/silt/rock mixture soils, bases on review of several resources (Driscoll, 1869; Freeze and Cherry, 1979). Groundwater flow velocities were calculated and are tabulated in Table 4, Groundwater Flow Velocity Calculations – October 2017. The calculated groundwater flow velocity at the AP-1 is 0.117 ft/day, 42.71 ft/year and at AP-2 is 0.020 ft/day, 7.30 ft/year.

3.3 GROUNDWATER SAMPLING

Groundwater samples were collected in accordance with §257.93(a). Sixteen of eighteen monitoring wells at AP-1 and AP-2 are equipped with a dedicated QED bladder pump. If a dedicated pump was not present, purging and sampling was performed using a peristaltic pump with the intake tubing lowered to the midpoint of the well screen (or as appropriate determined by the water level). All non-disposable equipment was decontaminated before use and between well locations using procedures described in the latest version of the Region IV USEPA Science and Ecosystem Support Division (SESD) *Operating Procedure for Field Equipment Cleaning and Decontamination* as a guide. Monitoring wells were purged and sampled using low-flow sampling procedures.

A SmarTroll® (In-Situ® field instrument) was used to monitor and record field water quality parameters (pH, conductivity, dissolved oxygen, temperature and oxidation reduction potential [ORP]) during well purging to verify stabilization prior to sampling. Turbidity was monitored using a LaMotte 1970-USEPA Compliant Model 2020we®, Hach 2100Q® USEPA Compliant, or HANNA Instruments Model HI93703® USEPA and ISO Compliant turbidity meter. Groundwater samples were collected when the following stabilization criteria were met:

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

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

3.4 LABORATORY ANALYSES

Groundwater samples collected for background monitoring included both Appendix III and Appendix IV parameters. Groundwater samples collected in October 2017 for detection monitoring were analyzed for Appendix III monitoring parameters only. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix A.

Laboratory analyses were performed by the GPC Environmental Laboratory (GPCEL) in Smyrna, Georgia, or Pace Analytical Services, LLC (Pace), of Peachtree Corners, Georgia, and Greensberg, Pennsylvania, which are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all parameters analyzed. In addition, GPCEL and Pace are certified to perform analysis by the State of Georgia. Groundwater data and chain of custody records for the monitoring events are presented in Appendix A.

3.5 QUALITY ASSURANCE & QUALITY CONTROL

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

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

blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using USEPA procedures as guidance (USEPA, 2017). Flagged data is identified in the statistical analysis reports described in the following section.

4.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III groundwater monitoring data was performed pursuant to §257.93 following the PE certified statistical method for AP-1 and AP-2.

4.1 STATISTICAL METHOD

The statistical test used to evaluate the groundwater monitoring data was the interwell prediction limit (PL) method combined with a 1-of-2 resample plan. The interwell PLs pool background data from the network of upgradient wells to calculate a PL. Data from the October 2017 detection monitoring event is compared to the statistical limit to determine whether any concentrations exceed background level. An "initial exceedance" occurs when any downgradient well data exceed the PL.

If data from a sampling event initially exceed the PL, the resampling strategy may be used to verify the result. In 1-of-2 resampling, one independent resample may be collected and evaluated within 90 days to determine whether the initial exceedance is verified. If the resample exceeds the PL, the initial exceedance is verified and a statistically significant increase (SSI) is determined. When a resample result does not verify the initial result, and does not exceed the PL, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance.

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

- Statistical analyses are not performed on analytes containing 100% non-detects (USEPA, 2009).
- When data contain less than or equal to 15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 16-50% non-detects, a non-detect adjustment such as the Kaplan-Meier or Regression on Order Statistics (ROS) method for adjustment of the mean and standard deviation will be used prior to constructing a parametric PL.
- Nonparametric PL are used on data containing greater than 50% non-detects.

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

4.2 STATISTICAL ANALYSES RESULTS

Analytical data from the October 2017 monitoring event at AP-1 and AP-2 has been statistically analyzed in accordance with the site's 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 B.

Based on review of the statistical results presented in Appendix B, the following parameters represent SSIs over background:

AP-1

- Boron: HGWC-7, HGWC-8, HGWC-9, HGWC-10, HGWC-11, HGWC-12, and HGWC-13,
- Calcium: HGWC-8, HGWC-9, and HGWC-10
- Chloride: HGWC-7, HGWC-8, HGWC-9, HGWC-10, HGWC-11, HGWC-12, and HGWC-13.
- Fluoride: HGWC-8, HGWC-9, HGWC-10, HGWC-11, HGWC-12, and HGWC-13
- Sulfate: HGWC-7, HGWC-8, HGWC-9, HGWC-10, HGWC-11, and HGWC-12
- Total Dissolved Solids (TDS): HGWC-8, HGWC-9, HGWC-10, and HGWC-12

AP-2

- Boron: HGWC-14, HGWC-15, HGWC-16, HGWC-17, and HGWC-18
- Calcium: HGWC-14, HGWC-15, HGWC-16, HGWC-17, and HGWC-18
- Chloride: HGWC-14, HGWC-15, HGWC-16, HGWC-17, and HGWC-18
- Fluoride: HGWC-14, HGWC-15, HGWC-17, and HGWC-18
- Sulfate: HGWC-14, HGWC-15, HGWC-16, HGWC-17, and HGWC-18
- TDS: HGWC-14, HGWC-15, HGWC-16, HGWC-17, and HGWC-18
- pH: HGWC-14, and HGWC-18

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

4.3 APPENDIX IV BACKGROUND DATA

Pursuant to §257.95, Appendix IV groundwater quality data is statistically analyzed and compared to groundwater protection standards if assessment monitoring is implemented. GPC is currently performing detection monitoring per §257.94 at AP-1 and AP-2 has not implemented assessment monitoring. Therefore, statistical analysis of the Appendix IV data has not been performed.

5.0 MONITORING PROGRAM STATUS

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

6.0 CONCLUSIONS & FUTURE ACTIONS

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

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

7.0 REFERENCES

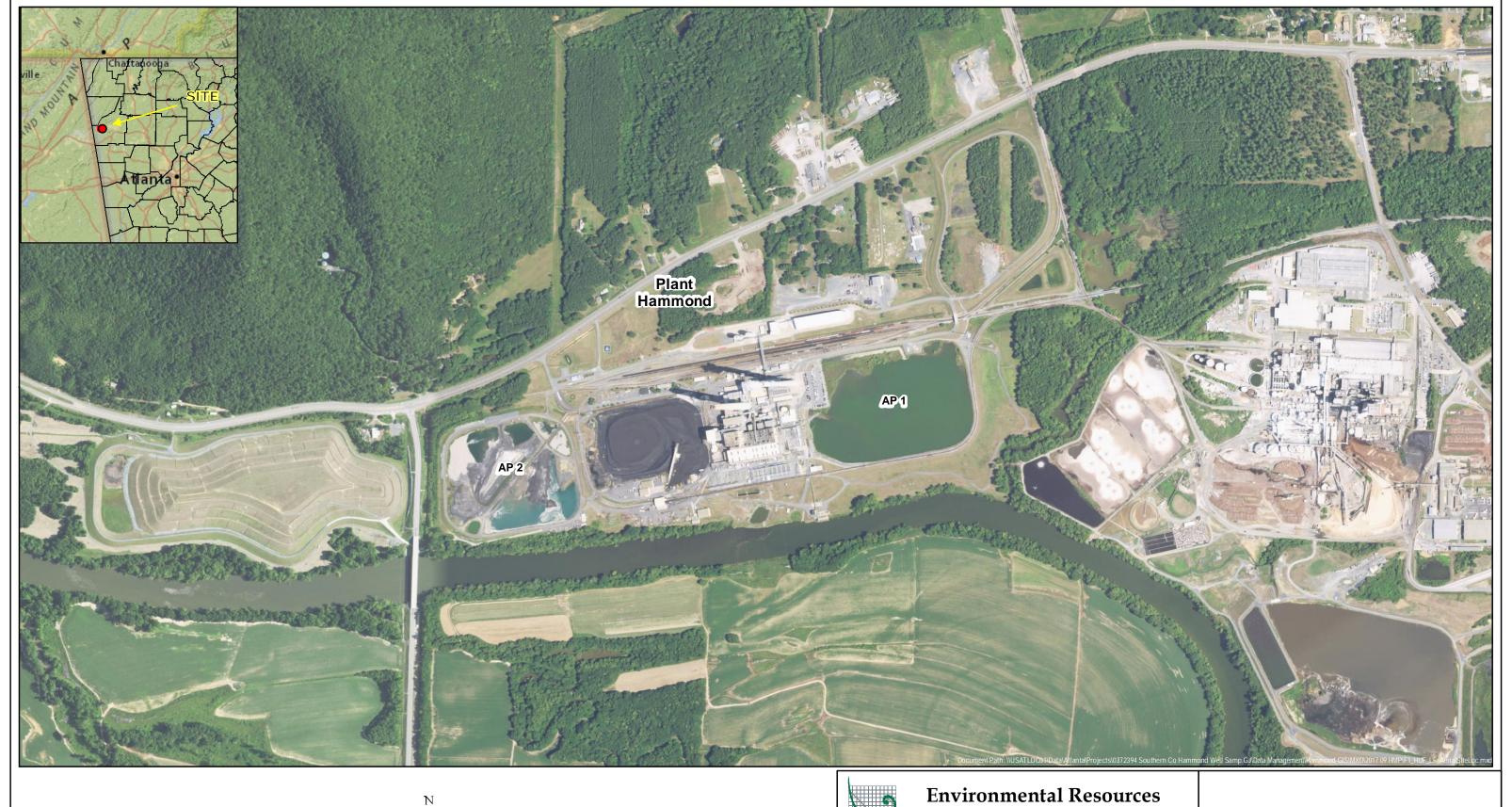
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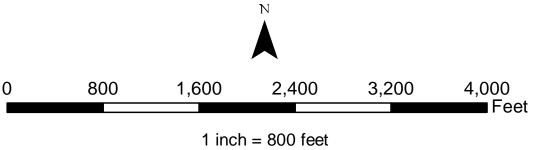
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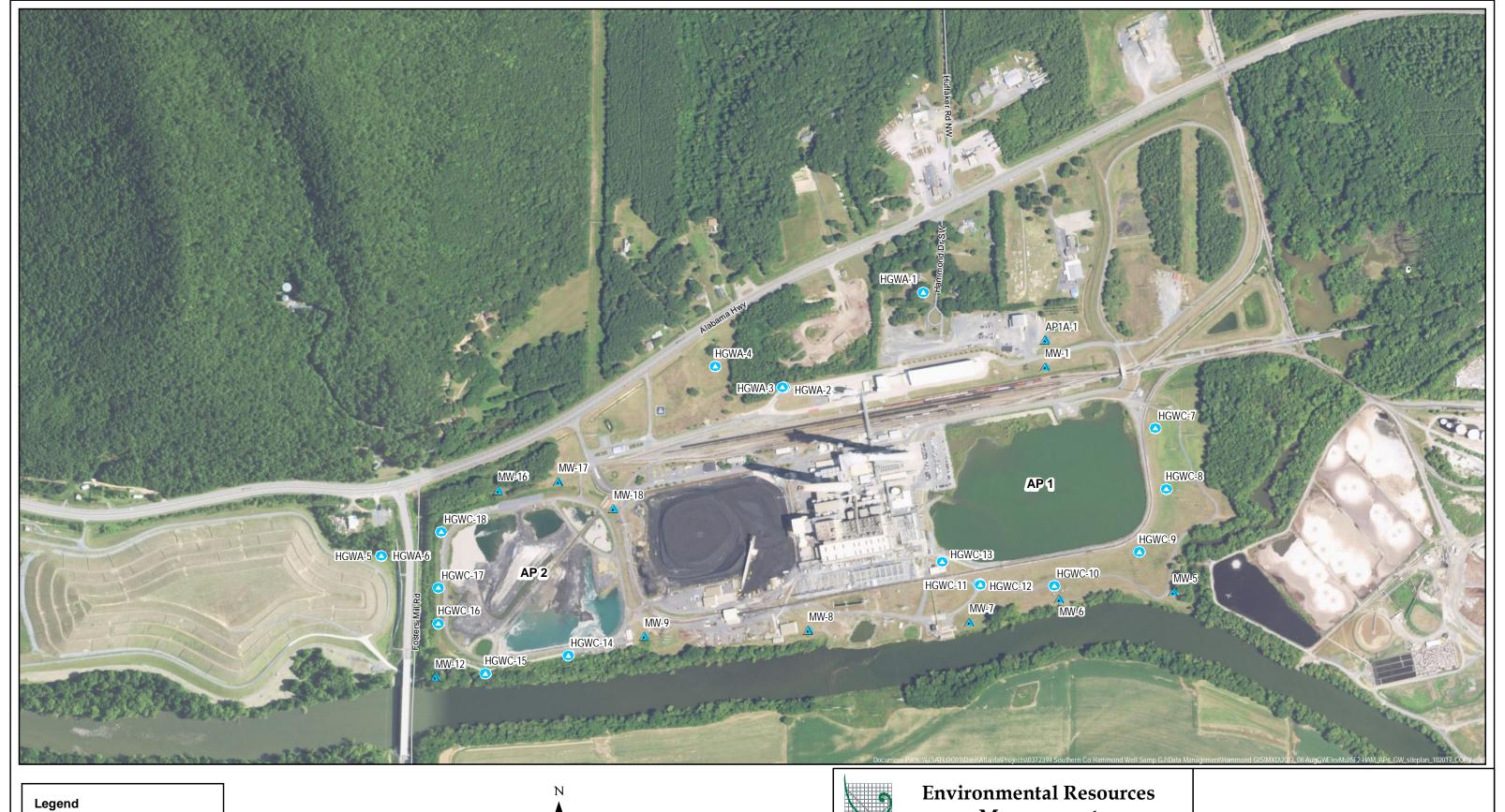
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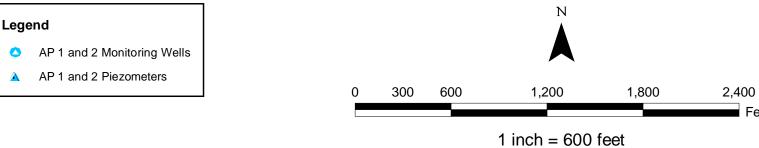
Ge	orgia Powei	' C 0	mpa	ny
SCALE	DRAWING NUMBER	SHEET	CONT'D	REV
	F1_AerialSiteLoc	1	As Shown	0

FIGURE 1

SITE LOCATION MAP

PLANT HAMMOND ASH PONDS 1 & 2 ROME, FLOYD COUNTY, GEORGIA







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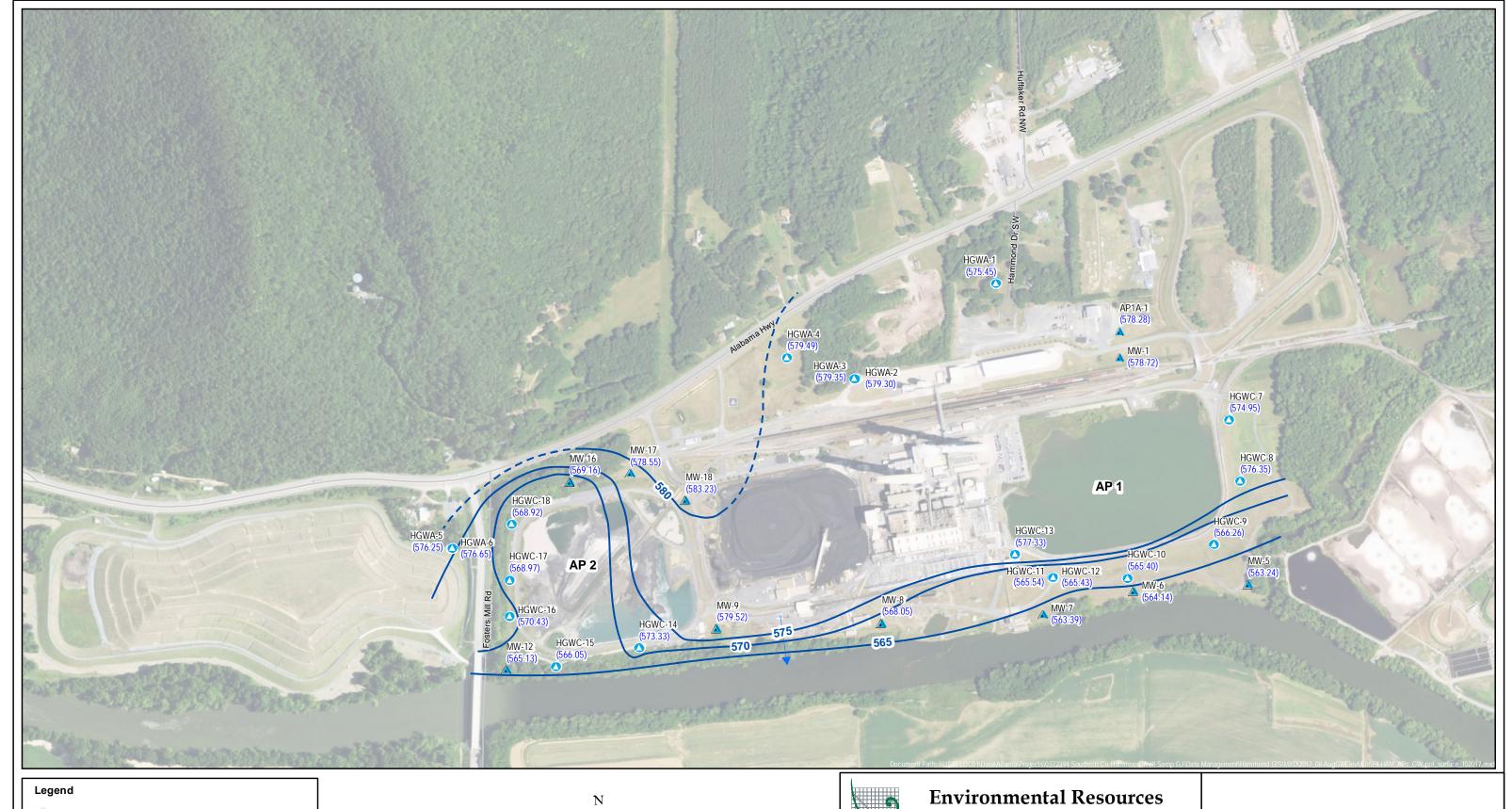
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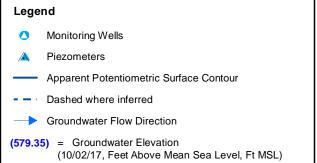
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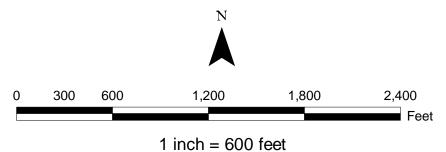
FIGURE 2

SITE PLAN AND WELL LOCATION MAP

PLANT HAMMOND ASH PONDS 1 & 2 ROME, FLOYD COUNTY, GEORGIA









Environmental Resources Management

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SCALE	DRAWING NUMBER	SHEET	CONT'D	REV
As Shown	F3-HAM-APs-GW_102017	2	As Shown	0

FIGURE 3

POTENTIOMETRIC SURFACE CONTOUR MAP - OCTOBER 2017 PLANT HAMMOND ASH PONDS 1 & 2 ROME, FLOYD COUNTY, GEORGIA

TABLE 1. MONITORING WELL NETWORK SUMMARY

	OMITORING WEEL				Top of		Top of	Bottom of	
		Installation			Casing		Screen	Screen	
	Hydraulic	Date			Elevation	Total	Elevation	Elevation	Screen
Well ID	Location	mm/dd/yyyy	Latitude	Longitude	(ft MSL)	Depth (ft)	(ft MSL)	(ft MSL)	Length (ft)
As	h Pond 1								
HGWA-1	Upgradient	12/3/2014	34.2564070	-85.3442100	595.50	32.60	573.30	563.30	10
HGWA-2	Upgradient	12/2/2015	34.2546540	-85.3472569	588.20	27.90	570.60	560.60	10
HGWA-3	Upgradient	12/2/2015	34.2546468	-85.3472957	588.10	44.60	553.60	543.60	10
HGWC-7	Downgradient	12/3/2015	34.2539743	-85.3390579	579.50	29.80	559.90	549.90	10
HGWC-8	Downgradient	12/8/2015	34.2528610	-85.3388016	580.10	24.70	565.40	555.40	10
HGWC-9	Downgradient	12/9/2015	34.2516972	-85.3393736	580.60	46.60	544.00	534.00	10
HGWC-10	Downgradient	12/8/2015	34.2510656	-85.3412530	579.70	22.60	567.10	557.10	10
HGWC-11	Downgradient	12/10/2015	34.2510719	-85.3429003	581.00	22.30	569.00	559.00	10
HGWC-12	Downgradient	12/9/2015	34.2510673	-85.3428822	581.00	35.10	556.20	546.20	10
HGWC-13	Downgradient	12/10/2015	34.2514789	-85.3437208	594.80	44.60	560.20	550.20	10
As	h Pond 2								
HGWA-1	Upgradient	12/3/2014	34.2564070	-85.3442100	595.50	32.60	573.30	563.30	10
HGWA-2	Upgradient	12/2/2015	34.2546540	-85.3472569	588.20	27.90	570.60	560.60	10
HGWA-3	Upgradient	12/2/2015	34.2546468	-85.3472957	588.10	44.60	553.60	543.60	10
HGWA-4	Upgradient	12/3/2014	34.2550140	-85.3487810	588.30	25.70	572.90	562.90	10
HGWA-5	Upgradient	12/10/2015	34.2513715	-85.3560179	583.50	27.40	566.90	556.90	10
HGWA-6	Upgradient	12/11/2015	34.2513796	-85.3560392	583.70	50.00	544.00	534.00	10
HGWC-14	Downgradient	10/16/2014	34.2496880	-85.3519600	598.10	43.00	565.50	555.50	10
HGWC-15	Downgradient	10/20/2014	34.2493330	-85.3537790	582.50	38.00	554.90	544.90	10
HGWC-16	Downgradient	10/21/2014	34.2502410	-85.3548250	581.10	33.00	558.40	548.40	10
HGWC-17	Downgradient	10/22/2014	34.2509010	-85.3548370	585.40	27.80	568.00	558.00	10
HGWC-18	Downgradient	10/22/2014	34.2519200	-85.3547840	585.30	27.70	568.00	558.00	10

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

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

ft = feet

MSL = mean sea level

TABLE 2. GROUNDWATER SAMPLING EVENT SUMMARY

TABLE 2. GRO	JUNDWATER S	DAINIT LING	LVLIVI 30	IVIIVIAIXI	Summar	y of Samplin	ng Events				
Well ID	Hydraulic Location	May 19-24, 2016	July 11-12, 2016	August 30 - September 1, 2016	October 19-25, 2016	December 6-8, 2016	January 24-26, 2017	March 21-23, 2017	May 22-25, 2017	October 3-4, 2017	Status of Monitoring Well
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Detection	
	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection
					5004	D005	DO00	D007	DOOO	D04	Ditterior
HGWC-17 HGWC-18	Downgradient	BG01	BG02 BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	Detection

BGXX = Background Event and Number

DXX = Detection Event Number

TABLE 3. SUMMARY OF HISTORICAL GROUNDWATER ELEVATIONS

	Top of Casing Elevation (ft				Gro	ındwater Ele	vations (ft M	SL)			
Well ID	MSL)	5/18/2016	7/11/2016	8/29/2016	10/17/2016	12/5/2016	1/23/2017	3/20/2017	5/22/2017	7/20/2016	10/2/2017
HGWA-1	595.50	578.16	575.94	574.60	573.70	573.27	580.41	583.02	579.57	577.65	575.45
HGWA-2	588.20	580.18	579.60	577.48	577.98	578.92	581.37	581.89	580.95	580.32	579.30
HGWA-3	588.10	580.28	579.66	577.44	577.92	578.75	581.51	582.11	581.10	580.42	579.35
HGWA-4	588.3	580.71	579.70	577.94	577.33	578.68	583.70	582.97	581.56	580.84	579.49
HGWA-5	583.50	576.99	576.17	575.19	575.18	576.05	577.85	578.16	577.29	576.83	576.25
HGWA-6	583.70	577.53	576.55	575.57	575.52	576.40	578.29	578.95	577.93	577.40	576.65
HGWC-7	579.50	574.68	574.87	574.30	574.48	575.39	576.31	575.20	575.21	575.05	574.95
HGWC-8	580.10	576.02	576.35	575.91	575.65	576.31	578.39	576.69	576.65	576.67	576.35
HGWC-9	580.60	567.10	566.53	566.04	564.22	564.20	568.95	567.15	567.35	567.45	566.26
HGWC-10	579.70	566.29	565.18	564.99	NM	562.29	567.01	566.61	566.62	566.78	565.40
HGWC-11	581.00	566.41	565.91	565.36	NM	562.45	566.83	566.14	566.70	566.87	565.54
HGWC-12	581.00	566.30	565.81	565.24	562.95	562.41	567.81	566.00	566.63	566.80	565.43
HGWC-13	594.80	576.51	577.36	576.97	578.13	575.90	577.50	576.49	577.32	577.61	577.33
HGWC-14	598.10	573.89	573.80	573.28	572.25	572.78	575.77	574.13	574.12	574.00	573.33
HGWC-15	582.50	566.64	566.16	565.20	563.62	563.44	568.23	566.61	566.57	566.86	566.05
HGWC-16	581.10	569.53	569.18	568.75	568.66	568.22	570.05	569.15	569.46	571.10	570.43
HGWC-17	585.40	568.55	568.16	568.35	568.25	567.92	569.42	568.01	568.19	569.71	568.97
HGWC-18	585.30	568.72	568.27	568.56	568.57	568.31	567.20	567.47	567.57	569.09	568.92
AP1A-1	587.72	579.47	578.51	577.16	576.56	578.40	583.07	581.32	580.22	579.33	578.28
MW-1	588.82	579.61	578.87	577.68	577.18	578.84	582.77	581.17	580.24	579.57	578.72
MW-5	581.02	564.51	563.50	562.98	560.74	560.59	564.61	564.26	564.52	564.70	563.24
MW-6	581.90	565.25	564.42	563.83	561.54	560.97	565.51	565.13	565.46	565.67	564.14
MW-7	577.90	564.51	560.90	563.30	560.59	560.20	565.79	564.31	564.90	565.06	563.39
MW-8	587.37	568.10	569.15	568.04	566.98	566.65	567.27	567.96	568.38	568.52	568.05
MW-9	591.67	579.01	579.38	579.15	578.62	579.39	581.96	579.64	579.77	579.89	579.52
MW-12	584.33	565.89	574.97	564.28	562.26	561.60	557.83	565.19	565.91	566.43	565.13
MW-16	575.22	569.40	569.16	569.01	569.05	569.58	570.97	568.70	568.78	569.11	569.16
MW-17	587.67	578.76	579.86	578.47	579.14	579.79	582.91	579.99	578.57	578.57	578.55
MW-18	593.07	583.07	583.37	583.05	582.57	583.41	585.70	583.42	583.45	583.52	583.23

NM = Not Measured

ft = feet MSL = mean sea level

TABLE 4. GROUNDWATER FLOW VELOCITY CALCULATIONS - OCTOBER 2017

Well ID		h ₁	h ₂	K (ft/day)	n _e	dh	L (ft)	i (ft/ft)	Velocity (ft/day)
HGWC-8	MW-5	576.35	563.24	1.85	0.30	13.11	675	0.019	0.117
HGWA-5	MW-12	576.25	565.13	0.47	0.50	11.12	875	0.013	0.020

K = hydraulic conductivity

i = hydraulic gradient h_1 and $h_2 = groundwater elevation at location 1 and 2$

 n_e = effective porosity L = distance between locations 1 and 2

 $dh = difference between h_1 and h_2$ ft = feet

						We	II ID			
	Substance	MCL/ (SMCL)	HGWA-1	HGWA-1	HGWA-1	HGWA-1	HGWA-1	HGWA-1	HGWA-1	HGWA-1
		(511162)	05/19/2016	07/11/2016	08/30/2016	10/19/2016	12/06/2016	01/24/2017	03/21/2017	05/22/2017
	Boron	N/R	ND (0.0214 J)	ND (0.0142 J)	ND (0.0074 J)	ND (0.0224 J)	ND (0.0211 J)	ND (0.0165 J)	ND (0.0187 J)	0.0782
≡	Calcium	N/R	138	97.2	97.5	99.2	105	95.7	106	107
APPENDIX III	Chloride	(250)	9.94	6.3	6.0	5.8	5.4	5.2	4.6	4.6
PPEN	Fluoride	4	ND (0.1050 J)	ND (0.16 J)	ND (0.09 J)	ND (0.10 J)	ND (0.11 J)	ND (0.09 J)	ND (0.13 J)	ND (0.12 J)
¥	Sulfate	(250)	66.9	41	36	46	59	46	63	77
	TDS	(500)	421	363	330	380	377	342	340	338
	Antimony	0.006	ND	ND	ND	ND (0.0014 J)	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND (0.0005 J)	ND
	Barium	2	0.0346	0.0311	0.0293	0.0293	0.0304	0.0280	0.0275	0.0281
	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 (0.0005 J)	ND
DIX	Cobalt	N/R	ND	ND (0.0004 J)	ND	ND	ND	ND	ND	ND
APPENDIX	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
ΑF	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.00004 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.397 U	0.738 U	0.581 U	0.213 U	0.444 U	0.373 U	0.816 U	0.554 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

- 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.

						We	II ID			
	Substance	MCL/ (SMCL)	HGWA-2	HGWA-2	HGWA-2	HGWA-2	HGWA-2	HGWA-2	HGWA-2	HGWA-2
		(511102)	05/19/2016	07/11/2016	08/30/2016	10/19/2016	12/06/2016	01/24/2017	03/21/2017	05/22/2017
	Boron	N/R	ND (0.0321 J)	ND (0.0337 J)	ND (0.0173 J)	ND (0.0341 J)	ND (0.0326 J)	ND (0.0365 J)	ND (0.0349 J)	0.0475
=	Calcium	N/R	22.9	22.3	26.4	21.7	18.2	18.5	18.6	17.8
APPENDIX III	Chloride	(250)	6.14	5.9	6.2	6.1	6.0	6.1	5.9	5.9
PEN	Fluoride	4	ND (0.0303 J)	ND (0.05 J)	ND (0.06 J)	ND (0.04 J)	0.36	ND	ND	ND
Α	Sulfate	(250)	48.6	45	42	44	44	46	46	48
	TDS	(500)	143	125	168	176	145	129	103	92
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.00127 J)	ND (0.0020 J)	ND (0.0017 J)	ND	ND	ND	ND	ND (0.0006 J)
	Barium	2	0.114	0.112	0.131	0.111	0.108	0.102	0.0950	0.103
	Beryllium	0.004	ND	ND (0.0001 J)	ND	ND (0.0001 J)	ND (0.0002 J)	ND (0.0001 J)	ND (0.0001 J)	ND (0.0001 J)
	Cadmium	0.005	ND	ND	ND	ND	ND	ND (0.0001 J)	ND (0.00007 J)	ND (0.0001 J)
≥	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
DIX	Cobalt	N/R	0.0293	0.0267	0.0280	0.0201	0.0184	0.0206	0.0251	0.0263
APPENDIX	Lead	0.015	ND	ND	ND	ND	ND	ND	ND (0.00006 J)	ND (0.00009 J)
Α	Lithium	N/R	ND	ND (0.0014 J)	ND	ND	ND	ND	ND (0.0012 J)	ND
	Mercury	0.002	ND	ND	ND (0.00004 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.627 U	1.38	1.05 U	1.11 U	0.741 U	0.908 U	0.567 U	0.638 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND (0.00003 J)	ND

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

						We	II ID			
	Substance	MCL/ (SMCL)	HGWA-3							
	Boron Calcium Chloride Fluoride Sulfate TDS Antimony Arsenic Barium Beryllium	(511162)	05/19/2016	07/12/2016	08/30/2016	10/19/2016	12/06/2016	01/24/2017	03/21/2017	05/22/2017
	Boron	N/R	ND	ND (0.0074 J)	ND	ND (0.0085 J)	ND (0.0085 J)	ND (0.0100 J)	ND (0.0079 J)	ND (0.0131 J)
≡	Calcium	N/R	76.2	61.5	65.1	73.2	74.9	69.6	75.7	71.5
IDIX	Chloride	(250)	5.93	6.2	6.4	6.5	7.2	6.4	7.5	6.5
PEN	Fluoride	4	ND (0.0513 J)	ND (0.12 J)	ND (0.09 J)	ND (0.1 J)	ND (0.21 J)	ND (0.06 J)	ND (0.005 J)	ND (0.05 J)
Α	Sulfate	(250)	42.3	44	40	43	43	48	45	46
	TDS	(500)	267	249	254	357	285	300	288	263
	Antimony	0.006	ND	ND (0.0003 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND (0.0008 J)	ND	ND	ND	ND	ND (0.0007 J)	ND (0.0006 J)
	Barium	2	0.111	0.115	0.113	0.123	0.127	0.126	0.120	0.117
	Beryllium	0.004	ND							
	Cadmium	0.005	ND							
≥	Chromium	0.1	ND	ND (0.0007 J)						
DIX	Cobalt	N/R	ND							
APPENDIX	Lead	0.015	ND	ND (0.0001 J)	ND	ND	ND	ND	ND (0.0001 J)	ND
ΑF	Lithium	N/R	ND	ND (0.0024 J)	ND (0.0025 J)	ND (0.0030 J)	ND (0.0033 J)	ND (0.0030 J)	ND (0.0034 J)	ND (0.0030 J)
	Mercury	0.002	ND							
	Molybdenum	N/R	ND							
	Radium	5	0.342 U	0.499 U	0.976 U	0.626 U	0.805 U	0.336 U	0.358 U	0.744 U
	Selenium	0.05	ND							
	Thallium	0.002	ND							

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

						We	II ID			
	Substance	MCL/ (SMCL)	HGWA-4	HGWA-4	HGWA-4	HGWA-4	HGWA-4	HGWA-4	HGWA-4	HGWA-4
		(511162)	05/19/2016	07/11/2016	08/30/2016	10/19/2016	12/06/2016	01/24/2017	03/21/2017	05/23/2017
	Boron	N/R	ND	ND (0.0175 J)	ND (0.0072 J)	ND (0.0180 J)	ND (0.0158 J)	ND (0.0145 J)	ND (0.0101 J)	ND (0.0159 J)
=	Calcium	N/R	48.4	73.0	85.7	89.7	80.0	30.8	34.0	43.0
APPENDIX III	Chloride	(250)	4.56	5.0	4.9	4.6	4.5	4.7	4.3	4.5
PEN	Fluoride	4	ND (0.0360 J)	ND (0.09 J)	ND (0.06 J)	ND (0.07 J)	ND (0.07 J)	ND	ND	ND (0.01 J)
Α	Sulfate	(250)	1.22	3.7	6.8	11	13	5.7	1.7	1.5
	TDS	(500)	165	266	292	338	356	131	132	183
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0266	0.0309	0.031	0.0332	0.0334	0.0192	0.0175	0.0227
	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 (0.0004 J)	ND
DIX	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
APPENDIX	Lead	0.015	ND	ND	ND	ND	ND (0.0002 J)	ND	ND	ND
ΑF	Lithium	N/R	ND	ND (0.0015 J)	ND (0.0027 J)	ND (0.0042 J)	ND (0.0046 J)	ND	ND	ND
	Mercury	0.002	ND	ND	ND (0.00005 J)	ND	ND (0.00005 J)	ND (0.00010 J)	ND (0.00016 J)	ND (0.00005 J)
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.662 U	1.19	0.847 U	2.34	0.925 U	0.607 U	0.0740 U	0.550 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

- 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.

		_				We	II ID			
	Substance	MCL/ (SMCL)	HGWA-5							
		(SIVICE)	05/19/2016	07/11/2016	08/30/2016	10/20/2016	12/08/2016	01/24/2017	03/21/2017	05/23/2017
	Boron	N/R	ND	ND (0.0052 J)	ND (0.0068 J)	ND (0.0135 J)	ND (0.0083 J)	ND (0.0072 J)	ND	ND (0.0095 J)
=	Calcium	N/R	35.5	35.4	28.0	26.7	23.5	24.5	30.8	24.2
APPENDIX III	Chloride	(250)	1.57	2.0	2.0	2.2	2.0	1.6	2.0	1.7
PEN	Fluoride	4	ND (0.0800 J)	ND (0.09 J)	ND (0.08 J)	ND (0.10 J)	ND (0.08 J)	ND (0.09 J)	ND (0.04 J)	ND (0.04 J)
Α	Sulfate	(250)	25.0	27	23	19	20	20	23	21
	TDS	(500)	168	158	141	99	116	156	144	134
	Antimony	0.006	ND	ND	ND	ND (0.0023 J)	ND	ND	ND	ND
	Arsenic	0.01	ND							
	Barium	2	0.0519	0.0565	0.0548	0.0539	0.0496	0.0478	0.0453	0.0496
	Beryllium	0.004	ND							
	Cadmium	0.005	ND							
2	Chromium	0.1	ND							
APPENDIX IV	Cobalt	N/R	ND	ND (0.0010 J)	ND (0.0010 J)	ND (0.0008 J)	ND (0.0006 J)	ND (0.0006 J)	ND (0.0008 J)	ND (0.0006 J)
PEN	Lead	0.015	ND	ND	ND	ND (0.0002 J)	ND	ND	ND	ND (0.00009 J)
ΑF	Lithium	N/R	ND	ND (0.0034 J)	ND (0.0030 J)	ND (0.0031 J)	ND (0.0027 J)	ND (0.0028 J)	ND (0.0037 J)	ND (0.0033 J)
	Mercury	0.002	ND							
	Molybdenum	N/R	ND							
	Radium	5	0.685 U	1.68	2.42	0.351 U	0.905 U	0.0774 U	0.0599 U	0.477 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND (0.0011 J)	ND	ND
	Thallium	0.002	ND							

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- 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.
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						We	II ID			
	Substance	MCL/ (SMCL)	HGWA-6	HGWA-6	HGWA-6	HGWA-6	HGWA-6	HGWA-6	HGWA-6	HGWA-6
		(SIVICE)	05/20/2016	07/11/2016	08/30/2016	10/20/2016	12/08/2016	01/24/2017	03/21/2017	05/23/2017
	Boron	N/R	ND (0.0363 J)	ND (0.0179 J)	ND (0.0140 J)	ND (0.0197 J)	ND (0.0159 J)	ND	ND (0.0166 J)	ND (0.0167 J)
=	Calcium	N/R	56.1	49.3	53.9	50.7	49.2	48.3	51.3	49.1
APPENDIX III	Chloride	(250)	1.35	1.7	1.6	1.6	1.6	1.9	1.3	1.2
PEN	Fluoride	4	ND (0.0650 J)	ND (0.13 J)	ND (0.07 J)	ND (0.06 J)	ND (0.06 J)	ND (0.02 J)	ND (0.08 J)	ND (0.006 J)
¥	Sulfate	(250)	34.4	34	36	36	36	37	37	38
	TDS	(500)	223	225	232	225	235	272	222	231
	Antimony	0.006	ND	ND (0.0010 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.174	0.134	0.212	0.157	0.162	0.168	0.186	0.187
	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 (0.0007 J)	ND
APPENDIX IV	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
PEN	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND (0.0003 J)
Ą	Lithium	N/R	ND	ND (0.0100 J)	ND (0.0095 J)	ND (0.0105 J)	ND (0.0100 J)	ND (0.0108 J)	ND (0.0115 J)	ND (0.0110 J)
	Mercury	0.002	ND	ND	ND (0.000044 J)	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND (0.0008 J)	ND	ND	ND	ND	ND (0.0002 J)	ND
	Radium	5	0.843 U	0.494 U	0.946 U	0.664 U	0.421U	0.965 U	0.139 U	0.308 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

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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.
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						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-7	HGWC-7						
		(511102)	05/20/2016	07/12/2016	09/01/2016	10/20/2016	12/06/2016	01/25/2017	03/21/2017	05/23/2017
	Boron	N/R	0.885	0.857	0.904	0.936	1.06	0.764	0.857	0.910
≡	Calcium	N/R	117	88.8	96.3	96.9	104	94.5	109	93.3
APPENDIX III	Chloride	(250)	50.4	50	50	49	51	54	46	49
PPEN	Fluoride	4	ND (0.0828 J)	ND (0.20 J)	0.51	0.40	ND (0.26 J)	ND (0.24 J)	ND (0.13 J)	ND (0.11 J)
¥	Sulfate	(250)	96.0	100	100	110	110	110	110	110
	TDS	(500)	427	410	484	393	492	461	415	450
	Antimony	0.006	ND	ND						
	Arsenic	0.01	ND	ND						
	Barium	2	0.0687	0.0731	0.0747	0.0720	0.0752	0.0747	0.0722	0.0794
	Beryllium	0.004	ND	ND						
	Cadmium	0.005	ND	ND	ND	ND	ND (0.0002 J)	ND (0.0002 J)	ND (0.0002 J)	ND (0.0001 J)
≥	Chromium	0.1	ND	ND						
DIX	Cobalt	N/R	ND	ND (0.0003 J)	ND	ND (0.0008 J)	ND (0.0009 J)	ND (0.0005 J)	ND (0.0005 J)	ND (0.0005 J)
APPENDIX	Lead	0.015	ND	ND	ND	ND	ND (0.0001 J)	ND (0.0001 J)	ND (0.00009 J)	ND (0.00008 J)
ΑF	Lithium	N/R	ND	ND (0.0021 J)	ND (0.0025 J)	ND (0.0021 J)	ND (0.0026 J)	ND (0.0024 J)	ND (0.0026 J)	ND (0.0026 J)
	Mercury	0.002	ND	ND						
	Molybdenum	N/R	0.0280	0.0273	0.0274	0.0360	0.0365	0.0317	0.0346	0.0336
	Radium	5	0.62 U	0.283 U	0.703 U	1.97	2.00	1.06 U	0.668 U	0.621 U
	Selenium	0.05	ND	ND						
	Thallium	0.002	ND	ND						

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- 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.
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						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-8	HGWC-8	HGWC-8	HGWC-8	HGWC-8	HGWC-8	HGWC-8	HGWC-8
		(511162)	05/20/2016	07/12/2016	09/01/2016	10/20/2016	12/06/2016	01/25/2017	03/21/2017	05/23/2017
	Boron	N/R	1.71	1.43	1.91	1.72	2.06	2.01	2.08	2.32
≡	Calcium	N/R	159	127	135	134	142	142	148	140
APPENDIX III	Chloride	(250)	109	110	110	110	100	110	110	130
PPEN	Fluoride	4	0.4990	0.67	0.94	0.56	0.76	1.1	0.46	0.65
¥	Sulfate	(250)	219	230	230	240	250	260	240	270
	TDS	(500)	711	704	763	644	733	744	818	765
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0808	0.0830	0.0829	0.0811	0.0845	0.0780	0.0791	0.0846
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND (0.000240 J)	ND (0.0002 J)	ND (0.0001 J)	ND (0.00010 J)	0.0017	ND (0.0002 J)	ND (0.0002 J)	ND (0.0003 J)
≥	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND (0.0005 J)	ND
DIX	Cobalt	N/R	ND (0.00207 J)	ND (0.0019 J)	ND (0.0023 J)	ND (0.0020 J)	ND (0.0026 J)	ND (0.0020 J)	ND (0.0023 J)	ND (0.0023 J)
APPENDIX	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
Α	Lithium	N/R	ND	ND (0.0023 J)	ND (0.0029 J)	ND (0.0027 J)	ND (0.0032 J)	ND (0.0026 J)	ND (0.0029 J)	ND (0.0029 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	0.446	0.455	0.481	0.472	0.520	0.478	0.547	0.482
	Radium	5	0.56 U	0.636 U	0.818 U	1.04 U	0.771 U	0.859 U	0.851 U	0.705 U
	Selenium	0.05	ND	ND	ND	ND	ND (0.0024 J)	ND	ND	ND
	Thallium	0.002	ND	ND (0.00007 J)	ND	ND	ND	ND	ND (0.00009 J)	ND (0.00008 J)

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- 7. TDS indicates total dissolved solids.
- 8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
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						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-9	HGWC-9	HGWC-9	HGWC-9	HGWC-9	HGWC-9	HGWC-9	HGWC-9
		(SIVICE)	05/23/2016	07/12/2016	09/01/2016	10/20/2016	12/06/2016	01/26/2017	03/22/2017	05/23/2017
	Boron	N/R	1.76	1.56	2.00	1.68	2.15	1.87	1.99	2.29
=	Calcium	N/R	179	174	170	133	181	175	183	181
APPENDIX III	Chloride	(250)	152	160	160	110	150	170	160	150
PEN	Fluoride	4	ND	ND (0.24 J)	0.46	0.56	0.31	ND (0.004 J)	ND (0.28 J)	ND (0.29 J)
¥	Sulfate	(250)	207	230	230	240	240	270	240	240
	TDS	(500)	984	887	956	642	899	869	936	939
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND (0.0008 J)	ND
	Barium	2	0.117	0.13	0.130	0.0806	0.128	0.142	0.122	0.127
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND (0.0002 J)	ND (0.0001 J)	ND	ND (0.00007 J)	ND
≥	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
APPENDIX IV	Cobalt	N/R	ND	ND (0.0006 J)	ND (0.0007 J)	ND (0.0020 J)	ND (0.0011 J)	ND (0.0006 J)	ND (0.0005 J)	ND (0.0006 J)
PEN	Lead	0.015	ND	ND	ND	ND	ND (0.0002 J)	ND (0.0001 J)	ND	ND (0.0001 J)
Α	Lithium	N/R	ND	ND (0.0040 J)	ND (0.0044 J)	ND (0.0027 J)	ND (0.0050 J)	ND (0.0042 J)	ND (0.0043 J)	ND (0.0048 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND (0.00004 J)	ND	ND
	Molybdenum	N/R	0.0187	0.0229	0.0239	0.477	0.0236	0.0234	0.0219	0.0242
	Radium	5	0.826 U	0.511 U	0.762 U	1.17	0.126 U	0.515 U	0.451 U	0.924 U
	Selenium	0.05	ND	ND	ND	ND	ND (0.0037 J)	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

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						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-10	HGWC-10	HGWC-10	HGWC-10	HGWC-10	HGWC-10	HGWC-10	HGWC-10
		(511162)	05/23/2016	07/12/2016	09/01/2016	10/24/2016	12/07/2016	01/26/2017	03/22/2017	05/24/2017
	Boron	N/R	0.720	0.778	0.786	0.831	1.01	0.108	0.788	0.814
≡	Calcium	N/R	167	143	156	156	183	82.6	154	171
APPENDIX III	Chloride	(250)	56.1	63	77	99	96	7.0	82	81
PEN	Fluoride	4	ND (0.0394 J)	ND (0.15 J)	0.50	ND (0.06 J)	0.44	ND (0.29 J)	0.34	ND (0.13 J)
Ā	Sulfate	(250)	175	190	190	190	200	90	170	190
	TDS	(500)	629	661	769	643	697	368	683	696
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0877	0.0926	0.0994	0.101	0.107	0.0538	0.0962	0.0996
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND (0.000115 J)	ND	ND (0.0001 J)	ND (0.0001 J)	ND (0.0001 J)	ND	ND (0.0001 J)	ND (0.0002 J)
≥	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
DIX	Cobalt	N/R	ND	ND (0.0006 J)	ND (0.0007 J)	ND (0.0009 J)	ND (0.0012 J)	ND	ND (0.0006 J)	ND (0.0006 J)
APPENDIX	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
ΑF	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND (0.00005 J)	ND	ND
	Molybdenum	N/R	ND	ND (0.0013 J)	ND	ND	ND	ND	ND (0.0013 J)	ND (0.0014 J)
	Radium	5	0.419 U	0.855	0.844 U	0.917 U	0.558 U	0.922 U	0.751 U	0.725 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND (0.0041 J)	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

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- 7. TDS indicates total dissolved solids.
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						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-11	HGWC-11	HGWC-11	HGWC-11	HGWC-11	HGWC-11	HGWC-11	HGWC-11
		(SIVICE)	05/23/2016	07/12/2016	09/01/2016	10/24/2016	12/07/2016	01/26/2017	03/22/2017	05/24/2017
	Boron	N/R	0.787	1.17	1.49	2.54	2.96	2.23	0.840	2.29
=	Calcium	N/R	131	124	107	145	159	121	130	117
APPENDIX III	Chloride	(250)	51.9	100	58	220	180	90	37	69
PEN	Fluoride	4	ND (0.2030 J)	0.44	0.67	ND (0.26 J)	0.55	ND (0.27 J)	0.66	0.35
Α	Sulfate	(250)	260	390	240	370	260	230	330	230
	TDS	(500)	564	627	656	836	748	571	597	566
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND (0.0015 J)	ND	ND	ND	ND	0.0053	ND
	Barium	2	0.0466	0.0616	0.0497	0.0794	0.100	0.0696	0.0346	0.0437
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND (0.00009 J)	ND
	Cadmium	0.005	ND	ND	ND	ND	ND (0.0001 J)	ND	ND (0.0001 J)	ND
2	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND (0.0003 J)	ND
APPENDIX IV	Cobalt	N/R	ND	ND (0.0021 J)	ND (0.0025 J)	ND (0.0032 J)	ND (0.0030 J)	ND (0.0014 J)	ND (0.0014 J)	ND (0.0008 J)
PEN	Lead	0.015	ND	ND	ND	ND	ND	ND	ND (0.0003 J)	ND (0.00009 J)
ΑF	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND (0.00005 J)	ND	ND
	Molybdenum	N/R	0.0164	0.0251	0.0259	0.0293	0.0209	0.0277	0.0110	0.0373
	Radium	5	0.509 U	0.784 U	0.261 U	1.42	0.781 U	0.842 U	0.318 U	0.687 U
	Selenium	0.05	0.0106	ND (0.0057 J)	ND (0.0057 J)	ND (0.0021 J)	ND (0.0015 J)	ND (0.0062 J)	0.0263	ND (0.0038 J)
	Thallium	0.002	ND	ND (0.00008 J)	ND	ND	ND	ND	ND	ND (0.00008 J)

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- 7. TDS indicates total dissolved solids.
- 8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
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						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-12	HGWC-12	HGWC-12	HGWC-12	HGWC-12	HGWC-12	HGWC-12	HGWC-12
		(511162)	05/23/2016	07/12/2016	09/01/2016	10/24/2016	12/07/2016	01/26/2017	03/22/2017	05/24/2017
	Boron	N/R	2.20	1.98	2.28	2.75	3.35	3.07	3.04	2.95
≡	Calcium	N/R	195	181	179	193	193	172	162	158
APPENDIX III	Chloride	(250)	160	160	140	160	190	160	130	120
PPEN	Fluoride	4	ND (0.2120 J)	0.31	0.62	ND (0.19 J)	0.73	ND (0.12 J)	0.44	0.34
¥	Sulfate	(250)	288	320	300	270	280	260	220	210
	TDS	(500)	1060	909	1480	868	811	846	804	803
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.00460 J)	0.0050	ND (0.0043 J)	ND (0.0049 J)	ND (0.0046 J)	ND	ND (0.0019 J)	ND (0.0022 J)
	Barium	2	0.133	0.135	0.123	0.135	0.130	0.127	0.112	0.106
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND (0.0002 J)	ND	ND (0.0003 J)	ND (0.00009 J)
≥	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND (0.0004 J)	ND
DIX	Cobalt	N/R	ND	ND (0.0018 J)	ND (0.0016 J)	ND (0.0017 J)	ND (0.0021 J)	ND (0.0016 J)	ND (0.0018 J)	ND (0.0015 J)
APPENDIX	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
Α	Lithium	N/R	ND (0.0107 J)	ND (0.0113 J)	ND (0.0118 J)	ND (0.0114 J)	ND (0.0155 J)	ND (0.0099 J)	ND (0.0098 J)	ND (0.0105 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND (0.0413 J)	0.0484	0.0474	0.0470	0.0432	0.0484	0.0494	0.0470
	Radium	5	1.12	1.61	1.23	1.98	0.319 U	0.540 U	0.635 U	1.01
	Selenium	0.05	ND	ND	ND	ND	ND (0.0011 J)	ND	ND	ND
	Thallium	0.002	ND	ND (0.0002 J)	ND	ND	ND	ND	ND (0.0001 J)	ND (0.00009 J)

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- 3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
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- 7. TDS indicates total dissolved solids.
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						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-13	HGWC-13	HGWC-13	HGWC-13	HGWC-13	HGWC-13	HGWC-13	HGWC-13
		(511162)	05/23/2016	07/12/2016	09/01/2016	10/24/2016	12/07/2016	01/26/2017	03/22/2017	05/24/2017
	Boron	N/R	2.15	1.91	2.30	4.01	3.85	2.45	1.99	1.74
≡	Calcium	N/R	133	101	120	127	113	77.9	85.1	77.1
APPENDIX III	Chloride	(250)	93.2	78	100	140	110	70	59	50
PPEN	Fluoride	4	ND (0.2587 J)	0.53	0.74	0.31	1.0	0.68	0.76	0.54
₹	Sulfate	(250)	215	210	190	180	120	83	100	110
	TDS	(500)	683	563	702	647	465	411	427	377
	Antimony	0.006	ND	ND (0.0003 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	0.329	0.297	0.314	0.334	0.350	0.424	0.419	0.393
	Barium	2	0.0779	0.0697	0.0700	0.0882	0.0798	0.0738	0.0755	0.0627
	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 (0.0004 J)	ND
APPENDIX IV	Cobalt	N/R	ND (0.00361 J)	ND (0.0032 J)	ND (0.0033 J)	ND (0.0040 J)	ND (0.0034 J)	ND (0.0024 J)	ND (0.0026 J)	ND (0.0022 J)
PEN	Lead	0.015	ND	ND	ND	ND	ND	ND	ND (0.00007 J)	ND
Ą	Lithium	N/R	ND (0.0422 J)	ND (0.0366 J)	ND (0.0400 J)	ND (0.0435 J)	ND (0.0477 J)	ND (0.0342 J)	ND (0.0353 J)	ND (0.0317 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND (0.00004 J)	ND	ND (0.00005 J)
	Molybdenum	N/R	0.0270	0.0316	0.0336	0.0352	0.0383	0.0410	0.0426	0.0400
	Radium	5	0.625 U	0.478 U	0.595 U	1.54	0.657 U	1.22	0.285 U	0.655 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND (0.000378 J)	ND (0.0004 J)	ND (0.0004 J)	ND (0.0005 J)	ND (0.0004 J)	ND (0.0004 J)	ND (0.0004 J)	ND (0.0003 J)

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						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-14	HGWC-14	HGWC-14	HGWC-14	HGWC-14	HGWC-14	HGWC-14	HGWC-14
		(Sivice)	05/23/2016	07/12/2016	09/01/2016	10/24/2016	12/07/2016	01/26/2017	03/23/2017	05/24/2017
	Boron	N/R	15.4	16.0	12.3	13.7	16.5	19.2	23.1	25.8
=	Calcium	N/R	664	528	586	564	590	558	652	617
APPENDIX III	Chloride	(250)	659	620	510	110	510	640	600	510
PEN	Fluoride	4	ND	ND (0.20 J)	ND (0.08 J)	ND (0.04 J)	ND (0.11 J)	ND (0.13 J)	ND (0.28 J)	0.32
¥	Sulfate	(250)	1070	1300	1300	280	1300	1400	1500	1400
	TDS	(500)	4130	3140	3200	2920	2740	3080	3060	3140
	Antimony	0.006	ND	ND (0.0003 J)	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.00268 J)	0.0059	0.0056	0.0058	ND	0.0089	0.0069	ND (0.0048 J)
	Barium	2	ND	0.0214	0.0208	0.0208	0.0220	0.0238	0.0244	0.0228
	Beryllium	0.004	ND	ND (0.0005 J)	ND (0.0005 J)	ND (0.0005 J)	ND (0.0006 J)	ND (0.0005 J)	ND (0.0006 J)	ND (0.0005 J)
	Cadmium	0.005	ND (0.000139 J)	ND	ND (0.0001 J)	ND (0.0002 J)	ND (0.0001 J)	ND (0.0001 J)	ND (0.0002 J)	ND (0.0001 J)
≥	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
APPENDIX IV	Cobalt	N/R	ND	0.0232	0.0248	0.0253	0.0269	0.0294	0.0311	0.0279
PEN	Lead	0.015	ND (0.00182 J)	ND (0.0015 J)	ND (0.0016 J)	ND (0.0016 J)	ND (0.0018 J)	ND (0.0020 J)	ND (0.0019 J)	ND (0.0016 J)
Ą	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.568 U	1.31	1.64	1.88	1.35	2.10	1.17	1.000 U
	Selenium	0.05	0.0170	0.0146	0.0137	0.0135	ND (0.0100 J)	0.0214	0.0167	ND (0.0083 J)
	Thallium	0.002	ND (0.000306 J)	ND (0.0003 J)	ND (0.0003 J)	ND (0.0004 J)	ND (0.0003 J)	ND (0.0003 J)	ND (0.0003 J)	ND (0.0003 J)

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						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-15	HGWC-15	HGWC-15	HGWC-15	HGWC-15	HGWC-15	HGWC-15	HGWC-15
		(511102)	05/23/2016	07/12/2016	09/01/2016	10/24/2016	12/07/2016	01/26/2017	03/23/2017	05/24/2017
	Boron	N/R	2.02	1.65	1.93	1.93	2.23	2.31	2.72	2.26
≡	Calcium	N/R	184	186	189	200	203	212	229	265
APPENDIX III	Chloride	(250)	209	190	200	200	240	260	280	240
PEN	Fluoride	4	ND	ND (0.09 J)	ND (0.22 J)	ND (0.07 J)	ND (0.23 J)	ND	ND (0.12 J)	0.31
¥	Sulfate	(250)	424	440	440	420	450	490	530	500
	TDS	(500)	1270	1100	1180	1090	1040	1260	1360	1320
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND (0.0008 J)	ND
	Barium	2	ND (0.0315 J)	0.0372	0.0364	0.0326	0.0301	0.0287	0.0329	0.0283
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND (0.00271 J)	0.0019	0.0017	0.0018	0.0018	0.0013	0.0020	0.0041
≥	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND (0.0005 J)	ND
APPENDIX IV	Cobalt	N/R	ND (0.0419 J)	0.0393	0.0450	0.0557	0.0536	0.0550	0.0715	0.0446
PEN	Lead	0.015	ND	ND	ND	ND	ND	ND	ND (0.0010 J)	ND (0.0001 J)
Ą	Lithium	N/R	ND	ND	ND (0.0021 J)	ND	ND	ND	ND (0.0016 J)	ND (0.0029 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND (0.0007 J)	ND	ND	ND	ND	ND	ND
	Radium	5	0.171 U	0.611 U	0.766 U	0.969	0.302 U	0.626 U	0.662 U	0.202 U
	Selenium	0.05	ND	ND	ND	ND (0.0012 J)	ND (0.0041 J)	ND	ND (0.0016 J)	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

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TABLE 5. PLANT HAMMOND ASH POND 1 AND ASH POND 2 ANLAYTICAL DATA SUMMARY

						We	II ID			
Substance Boron Calcium Chloride Fluoride Sulfate TDS Antimony Arsenic Barium Beryllium Cadmium Chromium Chromium Chobalt Lead Lithium	MCL/ (SMCL)	HGWC-16	HGWC-16	HGWC-16	HGWC-16	HGWC-16	HGWC-16	HGWC-16	HGWC-16	
		(511162)	05/23/2016	07/12/2016	09/01/2016	10/25/2016	12/07/2016	01/26/2017	03/22/2017	05/24/2017
	Boron	N/R	1.36	1.62	1.31	1.27	1.42	1.19	1.32	1.67
≡	Calcium	N/R	146	142	141	138	146	139	150	153
DIX	Chloride	(250)	25.8	34	34	35	38	41	41	44
PPEN	Fluoride	4	ND (0.0380 J)	ND (0.26 J)	0.42	ND (0.25 J)	ND (0.23 J)	ND (0.02 J)	0.30	0.46
¥	Sulfate	(250)	203	220	220	230	220	250	240	230
	TDS	(500)	570	585	625	563	561	608	599	598
	Antimony	0.006	ND							
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND (0.0005 J)	ND
	Barium	2	0.0841	0.0886	0.0934	0.0991	0.101	0.105	0.110	0.106
	Beryllium	0.004	ND							
	Cadmium	0.005	ND							
2	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND (0.0021 J)	ND
DIX	Cobalt	N/R	ND							
PEN	Lead	0.015	ND	ND	ND	ND	ND	ND (0.0001 J)	ND (0.0002 J)	ND (0.0001 J)
ΑF	Lithium	N/R	ND	ND (0.0037 J)	ND (0.0033 J)	ND (0.0029 J)	ND (0.0029 J)	ND (0.0028 J)	ND (0.0025 J)	ND (0.0029 J)
	Mercury	0.002	ND							
	Molybdenum	N/R	ND							
	Radium	5	0.000 U	0.182 U	1.23	1.05 U	1.11 U	1.29 U	0.453 U	1.05
	Selenium	0.05	ND							
	Thallium	0.002	ND							

Notes:

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TABLE 5. PLANT HAMMOND ASH POND 1 AND ASH POND 2 ANLAYTICAL DATA SUMMARY

						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-17	HGWC-17	HGWC-17	HGWC-17	HGWC-17	HGWC-17	HGWC-17	HGWC-17
		(Sivice)	05/23/2016	07/12/2016	09/01/2016	10/25/2016	12/07/2016	01/26/2017	03/22/2017	05/25/2017
	Boron	N/R	5.70	9.58	5.76	5.38	5.74	5.78	5.52	8.58
≡	Calcium	N/R	225	199	213	206	212	198	239	292
APPENDIX III	Chloride	(250)	94.0	100	95	98	89	99	100	99
PEN	Fluoride	4	ND	ND (0.09 J)	ND (0.03 J)	ND (0.07 J)	0.54	ND	ND (0.07 J)	0.42
Α	Sulfate	(250)	395	460	430	440	410	440	460	430
	TDS	(500)	1010	976	1060	ND	866	1000	1080	1080
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND (0.0007 J)	ND (0.0007 J)
	Barium	2	ND (0.0222 J)	0.0221	0.0227	0.0225	0.0227	0.0229	0.0248	0.0255
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND (0.00007 J)	ND
≥	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
DIX	Cobalt	N/R	0.0167	0.0148	0.0151	0.0141	0.0141	0.0154	0.0169	0.0154
APPENDIX	Lead	0.015	ND	ND	ND	ND	ND	ND	ND (0.0001 J)	ND
Α	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND (0.0011 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.618 U	0.867	0.857 U	1.11 U	0.964 U	0.612 U	0.437 U	1.21 U
	Selenium	0.05	ND	ND	ND (0.0014 J)	ND	ND (0.0023 J)	ND	ND	ND
	Thallium	0.002	ND	ND (0.0001 J)	ND	ND	ND	ND	ND (0.0001 J)	ND (0.0001 J)

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TABLE 5. PLANT HAMMOND ASH POND 1 AND ASH POND 2 ANLAYTICAL DATA SUMMARY

						We	II ID			
	Substance	MCL/ (SMCL)	HGWC-18	HGWC-18	HGWC-18	HGWC-18	HGWC-18	HGWC-18	HGWC-18	HGWC-18
		(511162)	05/24/2016	07/12/2016	09/01/2016	10/25/2016	12/08/2016	01/26/2017	03/23/2017	05/25/2017
	Boron	N/R	9.33	11.9	8.80	8.50	7.15	9.17	10.6	13.2
≡	Calcium	N/R	403	328	379	362	366	394	440	492
APPENDIX III	Chloride	(250)	280	300	270	290	300	340	350	290
PEN	Fluoride	4	ND	0.54	0.49	0.58	0.63	0.71	0.57	0.54
Ā	Sulfate	(250)	834	930	890	950	910	970	980	920
	TDS	(500)	1900	1950	2000	1870	1930	1950	2080	1970
	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.00294 J)	0.0074	0.0073	0.0060	0.0070	0.0068	0.0082	0.0060
	Barium	2	ND	0.0346	0.0336	0.0349	0.0339	0.0293	0.0313	0.0336
	Beryllium	0.004	ND (0.00278 J)	0.0032	0.0034	0.0034	0.0033	0.0034	0.0036	0.0036
	Cadmium	0.005	ND	0.0022	0.0024	0.0022	0.0024	0.0025	0.0025	0.0027
≥	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND (0.0005 J)	ND
DIX	Cobalt	N/R	ND (0.170 J)	0.168	0.180	0.188	0.206	0.195	0.223	0.209
APPENDIX	Lead	0.015	ND (0.00154 J)	ND (0.0012 J)	ND (0.0014 J)	ND (0.0015 J)	ND (0.0017 J)	ND (0.0013 J)	ND (0.0010 J)	ND (0.0012 J)
Α	Lithium	N/R	ND (0.0142 J)	ND (0.0141 J)	ND (0.0158 J)	ND (0.0160 J)	ND (0.0144 J)	ND (0.0136 J)	ND (0.0151 J)	ND (0.0154 J)
	Mercury	0.002	ND	ND	ND (0.00006 J)	ND (0.00004 J)	ND	ND (0.00008 J)	ND (0.00009 J)	ND (0.00008 J)
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.82	1.76	1.51	2.69	2.21	2.26	1.81	1.63
	Selenium	0.05	ND	0.036	0.0347	0.0282	0.0373	0.0385	0.0414	0.0190
	Thallium	0.002	ND	ND (0.0002 J)	ND	ND	ND	ND	ND (0.0002 J)	ND (0.0002 J)

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Appendix A Analytical Data Reports

Atlanta, Ga. 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

June 10, 2016

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

RE: Workorder: 103518 CCR - Hammond AP

Dear Joju Abraham:

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

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

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

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

L. Biddy

Ibbiddy@southernco.com

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

Respectfully submitted,

R. S. Dickerson rsdicker@southernco.com

QA/QC Specialist

Report ID: 103518 - 5038398 GPC Report Page 1 of 18

SAMPLE SUMMARY

Workorder: 103518 CCR - Hammond AP

Lab ID	Sample ID	Analysis Request Number	r Matrix	Date Collected	Date Received
103518001	HGWC-7	N/A	Water	5/20/2016 09:05	5/20/2016 13:16
103518002	HGWC-8	N/A	Water	5/20/2016 09:09	5/20/2016 13:16
103518003	HGWA-6	N/A	Water	5/20/2016 09:23	5/20/2016 13:16

Report ID: 103518 - 5038398 GPC Report Page 2 of 18

CERTIFICATE OF ANALYSIS

ANALYTICAL RESULTS

Workorder: 103518 CCR - Hammond AP

Lab ID:103518001Date Received:5/20/2016 13:16Sample ID:HGWC-7Date Collected:5/20/2016 09:05Sample DescriptionHammond AP GWMatrix:Water

Sample ID: HGWC-7					Date	Collecte	d: 5/20/2016 09	1:05	
Sample Description	Hammond AP	GW			Matr	ix:	Water		
Location	Hammond AP	•							
Parameters	Results	Units	MDL	RL	Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D		Preparation	Method: EP/	A 3005A				
			Analytical M						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:45	MRP	
Calcium	117	mg/L	1.00		6/1/2016 11:30	KLW	6/6/2016 18:45	MRP	
Analysis Desc: EPA 74	70A		Preparation	Method: EP/	4 7470A				
			Analytical M	ethod: EPA 7	7470A				
TOTAL METALS Mercury	<0.000500	mg/L	0.000250		5/26/2016 06:33 5/26/2016 06:33	WCM WCM	5/27/2016 09:04 5/27/2016 09:04	WCM WCM	
Analysis Desc: EPA 60	20B		Preparation	Method: EPA	A 3005A				
			Analytical M						
Lithium	<0.0500	ma/L	0.0100		5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Beryllium	<0.00300	J	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Boron	0.885	mg/L	0.0400	0.200	5/25/2016 10:15	KLW	6/3/2016 16:29	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Molybdenum	0.0280	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Barium	0.0687	0	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:20	ELS	
Analysis Desc: EPA 30	0		Analytical M	ethod: EPA	300				
TOTAL NUTRIENTS							6/3/2016 13:44	LBB	
Sulfate	96.0	-	7.50	25.0			6/3/2016 13:44	LBB	
Chloride	50.4	mg/L	1.00	6.25			6/3/2016 13:44	LBB	
Fluoride	0.0828J i	mg/L	0.0100	0.3000			6/3/2016 09:45	LBB	
Analysis Desc: SM 254	10C		Analytical M	ethod: SM 2	540C				
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	427	mg/L	25	25			5/24/2016 18:35	KLW	

Report ID: 103518 - 5038398 GPC Report Page 3 of 18

CERTIFICATE OF ANALYSIS

ANALYTICAL RESULTS

Workorder: 103518 CCR - Hammond AP

Lab ID:103518002Date Received:5/20/2016 13:16Sample ID:HGWC-8Date Collected:5/20/2016 09:09Sample DescriptionHammond AP GWMatrix:Water

Sample ID: HGWC-6					Date	Date Collected. 3/20/2010 05:05				
Sample Description	Hammond Al	PGW			Matr	ix:	Water			
Location	Hammond Al	P								
Parameters	Results	Units	MDL	RL	Prepared	Ву	Analyzed	Ву	Qual	
Analysis Desc: EPA 6	010D		Preparation	Method: EF	PA 3005A					
			Analytical M	ethod: EPA	6010D					
INORGANICS			•		6/1/2016 11:30	KLW	6/6/2016 18:51	MRP		
Calcium	159	mg/L	1.00	5.00	6/1/2016 11:30	KLW	6/6/2016 18:51	MRP		
Analysis Desc: EPA 74	470A		Preparation	Method: EF	PA 7470A					
			Analytical M	ethod: EPA	7470A					
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 09:12	WCM		
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 09:12	WCM		
Analysis Desc: EPA 6	020B		Preparation	Method: EF	PA 3005A					
			Analytical M	ethod: EPA	6020B					
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Beryllium	< 0.00300	•	0.000600		5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Boron	1.71	mg/L	0.100		5/25/2016 10:15	KLW	6/3/2016 16:34	ELS		
Chromium	< 0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Cobalt	0.00207J		0.00200		5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Arsenic	< 0.00500		0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Selenium	< 0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Molybdenum	0.446	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	6/3/2016 16:34	ELS		
Cadmium	0.000240J	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Antimony	< 0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Barium	0.0808	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Thallium	< 0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:24	ELS		
Analysis Desc: EPA 3	00		Analytical M	ethod: EPA	300					
TOTAL NUTRIENTS							6/1/2016 11:19	LBB		
Sulfate		mg/L	30.0	100			6/1/2016 11:19	LBB		
Chloride	109	mg/L	4.00	25.0			6/1/2016 11:19	LBB		
Fluoride	0.4990	mg/L	0.0100	0.3000			5/31/2016 14:51	LBB		
Analysis Desc: SM 25	40C		Analytical M	ethod: SM 2	2540C					
WET CHEMISTRY							5/24/2016 18:35	KLW		
TDS	711	mg/L	25	25			5/24/2016 18:35	KLW		

Report ID: 103518 - 5038398 GPC Report Page 4 of 18

CERTIFICATE OF ANALYSIS

ANALYTICAL RESULTS

Workorder: 103518 CCR - Hammond AP

 Lab ID:
 103518003
 Date Received:
 5/20/2016 13:16

 Sample ID:
 HGWA-6
 Date Collected:
 5/20/2016 09:23

Sample ID: HGWA-6			Dat	Date Collected: 5/20/2016 09:23				
Sample Description	Hammond AP GW		Mat	rix:	Water			
Location	Hammond AP							
Parameters	Results Units	s MDL	RL Prepared	Ву	Analyzed	Ву	Qual	
Analysis Desc: EPA 60	10D	Preparation	Method: EPA 3005A					
7		·	lethod: EPA 6010D					
INORGANICS		7a.yoa	6/1/2016 11:30	KLW	6/6/2016 18:57	MRP		
Calcium	56.1 mg/L	0.200	1.00 6/1/2016 11:30	KLW	6/6/2016 18:57	MRP		
Analysis Desc: EPA 74	70A	Preparation	Method: EPA 7470A					
		Analytical M	lethod: EPA 7470A					
TOTAL METALS Mercury	<0.000500 mg/L	0.000250	5/26/2016 06:33 0.000500 5/26/2016 06:33	WCM WCM	5/27/2016 09:17 5/27/2016 09:17	WCM WCM		
Analysis Desc: EPA 60	20B	Preparation	Method: EPA 3005A					
,		Analytical M	lethod: EPA 6020B					
Lithium	<0.0500 mg/L	0.0100	0.0500 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Boron	0.0363J mg/L	0.0200	0.100 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Chromium	<0.0100 mg/L	0.00200	0.0100 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Selenium	<0.0100 mg/L	0.00200	0.0100 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Antimony	<0.00300 mg/L	0.000600	0.00300 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Barium	0.174 mg/L		0.0100 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Thallium	<0.00100 mg/L	0.000200	0.00100 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Lead	<0.00500 mg/L	0.00100	0.00500 5/25/2016 10:15	KLW	5/27/2016 21:29	ELS		
Analysis Desc: EPA 30	0	Analytical M	lethod: EPA 300					
TOTAL NUTRIENTS					6/1/2016 11:58	LBB		
Sulfate	34.4 mg/L		2.00		6/1/2016 11:58	LBB		
Chloride	1.35 mg/L	0.0400	0.2500		5/31/2016 16:46	LBB		
Fluoride	0.0650J mg/L	0.0100	0.3000		5/31/2016 16:46	LBB		
Analysis Desc: SM 254	10C	Analytical M	lethod: SM 2540C					
WET CHEMISTRY					5/24/2016 18:35	KLW		
TDS	223 mg/L	. 25	25		5/24/2016 18:35	KLW		

Report ID: 103518 - 5038398 GPC Report Page 5 of 18

CERTIFICATE OF ANALYSIS

Atlanta, Ga. 30339 Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS QUALIFIERS

Workorder: 103518 CCR - Hammond AP

PARAMETER QUALIFIERS

ND None detected at the laboratory Method Detection Limit

MDL Method Detection Limit

RL Reporting Limit

J The reported value is between the laboratory method detection limit and the laboratory reporting limit

Report ID: 103518 - 5038398 GPC Report Page 6 of 18

QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

QC Batch: DIGM/4321 Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Associated Lab Samples: 103518001 103518002 103518003

METHOD BLANK: 106220

WETHOD BEANN. 1002.	20		
		Blank	Reporting
Parameter	Units	Result	Limit Qualifiers
TOTAL METALS			
Lithium	mg/L	< 0.0500	0.0500
Beryllium	mg/L	< 0.00300	0.00300
Boron	mg/L	< 0.100	0.100
Chromium	mg/L	< 0.0100	0.0100
Cobalt	mg/L	< 0.0100	0.0100
Arsenic	mg/L	< 0.00500	0.00500
Selenium	mg/L	< 0.0100	0.0100
Molybdenum	mg/L	< 0.0100	0.0100
Cadmium	mg/L	< 0.00100	0.00100
Antimony	mg/L	< 0.00300	0.00300
Barium	mg/L	< 0.0100	0.0100
Thallium	mg/L	< 0.00100	0.00100
Lead	mg/L	< 0.00500	0.00500

LABORATORY CONTROL SAMPLE: 106221

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Lithium	mg/L	0.2	0.205	102	80-120
Beryllium	mg/L	0.1	0.0978	97.8	80-120
Boron	mg/L	0.3	0.313	104	80-120
Chromium	mg/L	0.1	0.105	105	80-120
Cobalt	mg/L	0.1	0.106	106	80-120
Arsenic	mg/L	0.1	0.102	102	80-120
Selenium	mg/L	0.1	0.0979	97.9	80-120
Molybdenum	mg/L	0.1	0.0992	99.2	80-120
Cadmium	mg/L	0.1	0.104	104	80-120
Antimony	mg/L	0.1	0.105	105	80-120
Barium	mg/L	0.1	0.102	102	80-120
Thallium	mg/L	0.1	0.0918	91.8	80-120
Lead	mg/L	0.1	0.0954	95.4	80-120

Report ID: 103518 - 5038398 GPC Report Page 7 of 18

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

MATRIX SPIKE & MATE	LICATE: 1062	222	1062	06223 Original: 103483005						
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit		Max RPD Qualifiers
TOTAL METALS										
Lithium	mg/L	0.00069	0.2	0.198	0.193	98.8	96.3	75-125	2.6	20
Beryllium	mg/L	7e-006	0.1	0.0956	0.0944	95.6	94.4	75-125	1.3	20
Boron	mg/L	0.0289	0.3	0.334	0.329	102	100	75-125	2	20
Chromium	mg/L	0.00014	0.1	0.107	0.106	107	106	75-125	0.94	20
Cobalt	mg/L	0.00191	0.1	0.108	0.106	106	105	75-125	0.95	20
Arsenic	mg/L	0.00064	0.1	0.104	0.103	104	103	75-125	0.97	20
Selenium	mg/L	0.00013	0.1	0.101	0.0991	101	99	75-125	2	20
Molybdenum	mg/L	0.00083	0.1	0.106	0.104	105	103	75-125	1.9	20
Cadmium	mg/L	8.7e-005	0.1	0.106	0.104	106	103	75-125	2.9	20
Antimony	mg/L	8.8e-005	0.1	0.109	0.106	108	106	75-125	1.9	20
Barium	mg/L	0.0557	0.1	0.157	0.154	101	98.6	75-125	2.4	20
Thallium	mg/L	6e-006	0.1	0.0933	0.0922	93.3	92.1	75-125	1.3	20
Lead	mg/L	2.4e-005	0.1	0.0962	0.0946	96.2	94.6	75-125	1.7	20

Report ID: 103518 - 5038398 GPC Report Page 8 of 18

QUALITY CONTROL DATA

Workorder: 103518	CCR - I	Hammond AP						
QC Batch:	GRA	V/2876		Analysis Method	:	SM 2540C		
QC Batch Method:	SM 2	540C						
Associated Lab San	nples:	103518001 103520004	103518002 103520005	103518003		103520001	103520002	103520003
METHOD BLANK: 1	106278							
Parameter		Units	Blank Result	Reporting Limit Quali	iers			
WET CHEMISTRY TDS		mg/L	<25	25				
LABORATORY COM	NTROL	SAMPLE: 10628	31					
Parameter		Units	Spike Conc.	LCS Result	LCS % Rec		Qualifiers	
WET CHEMISTRY TDS		mg/L	241	240	99.6	90-110		
SAMPLE DUPLICAT	TE: 106	6279		Original: 1035150	02			
Parameter		Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers	
WET CHEMISTRY TDS		mg/L	93	100	7.3	20		
SAMPLE DUPLICAT	TE: 106	6280		Original: 1035200	01			
Parameter		Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers	
WET CHEMISTRY			407	400	0.70	22		
TDS		mg/L	127	128	0.78	20		

Report ID: 103518 - 5038398 GPC Report Page 9 of 18

QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

QC Batch: DIGM/4326 Analysis Method: **EPA 6010D**

QC Batch Method: **EPA 3005A**

103518001 103518002 103518003 Associated Lab Samples:

METHOD BLANK: 106296

Reporting Blank Units Limit Qualifiers Parameter Result **INORGANICS**

Calcium mg/L < 0.500 0.500

LABORATORY CONTROL SAMPLE: 106297

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers **INORGANICS** Calcium mg/L 5 5.31 106 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106298 106299 Original: 103518003

MSD Original Spike MS MS MSD % Rec Max Limit RPD RPD Qualifiers Parameter Units Result Conc. Result Result % Rec % Rec **INORGANICS** 5 61.4 Calcium mg/L 56.1 62.3 123 107 75-125 13.9 20

Report ID: 103518 - 5038398 GPC Report Page 10 of 18

QUALITY CONTROL DATA

QC Batch:	IC/3035			Analysis M	ethod:	EPA:	300				
QC Batch Method:	EPA 300										
Associated Lab Sa	mples: 10351800	1									
METHOD BLANK:	106360										
Parameter	Units		Blank Result	Reporting Limit	Qualifiers						
Chloride	mg/L	<0	.2500	0.2500							
Sulfate	mg/L		<1.00	1.00							
Fluoride	mg/L	<0	.3000	0.3000							
LABORATORY CO	ONTROL SAMPLE:	106353									
		S	oike	LCS	LC:	3	% Rec				
Parameter	Units		onc.	Result	% Re	С	Limits (Qualifiers			
Chloride	mg/L		11.3	11.9	10	5	90-110				
Fluoride	mg/L	(6.83	6.92	10	1	90-110				
LABORATORY CO	ONTROL SAMPLE:	106361									
		S	oike	LCS	LC:	3	% Rec				
Parameter	Units	Co	onc.	Result	% Re	С	Limits (Qualifiers			
Chloride	mg/L		0.5	0.4843	96.		90-110				
Sulfate	mg/L		5	4.95	9		90-110				
Fluoride	mg/L		0.5	0.5255	10	5	90-110				
MATRIX SPIKE &	MATRIX SPIKE DUP	LICATE: 1063	356			Orig	inal: 1035	517002			
		Original	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Result	Result	% Rec	% Rec	Limit	RPD	RPD	Qualifiers
Fluoride	mg/L	0	1	1.07		107	0	90-110	0	0	
MATRIX SPIKE &	MATRIX SPIKE DUP	LICATE: 1063	366	10636	7	Orig	inal: 1035	517006			
		Original	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Result	Result	% Rec	% Rec	Limit	RPD	RPD	Qualifiers

Report ID: 103518 - 5038398 GPC Report Page 11 of 18 mg/L

9.58

10

Sulfate

CERTIFICATE OF ANALYSIS

19.4

19.4

98.1

98

90-110 0.1

10

QUALITY CONTROL DATA

Workorder: 103518	CCR - I	Hammond AP						
QC Batch:	IC/30	36		Analysis Me	thod:	EPA 300		
QC Batch Method:	EPA:	300						
Associated Lab Sam	ples:	103518002 103520005	103518003	1035200	001	103520002	103520003	103520004
METHOD BLANK: 1	06368							
Parameter		Units	Blank Result	Reporting Limit C	Qualifiers			
Chloride Fluoride		mg/L mg/L	<0.2500 <0.3000	0.2500 0.3000				
METHOD BLANK: 1	06378							
Danamata:		Lla?t-	Blank	Reporting	N = III c			
Parameter		Units	Result	Limit C	Qualifiers			
Chloride		mg/L	<0.2500	0.2500				
Fluoride		mg/L	<0.3000	0.3000				
METHOD BLANK: 1	06634							
			Blank	Reporting				
Parameter		Units	Result	Limit C	Qualifiers			
Chloride		mg/L	<0.2500	0.2500				
Sulfate		mg/L	<1.00	1.00				
METHOD BLANK: 1	06670							
			Blank	Reporting				
Parameter		Units	Result	Limit C	Qualifiers			
Chloride		mg/L	<0.2500	0.2500				
Sulfate		mg/L	<1.00	1.00				
LABORATORY CON	TROL	SAMPLE: 10636	69					
			Spike	LCS	LCS	% R	ec	
Parameter		Units	Conc.	Result	% Rec		its Qualifiers	
Chloride		mg/L	0.5	0.5010	100			
Fluoride		mg/L	0.5	0.5320	106	90-1	10	

Report ID: 103518 - 5038398 GPC Report Page 12 of 18

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103518 CC	R - Hammond	AP										
LABORATORY CONTR	ROL SAMPLE:	106371										
Parameter	Units		oike onc.	LCS Result	L % F	CS Rec	% Rec Limits (Qualifiers				
Chloride Fluoride	mg/L mg/L		11.3 6.83	11.7 6.90		04 01	90-110 90-110					
LABORATORY CONTR	ROL SAMPLE:	106379										
Parameter	Units		oike onc.	LCS Result	L: % F	CS Rec	% Rec Limits (Qualifiers				
Chloride Fluoride	mg/L mg/L		0.5 0.5	0.5010 0.5350		00 07	90-110 90-110					
LABORATORY CONTR	ROL SAMPLE:	106635										
Parameter	Units		oike onc.	LCS Result	L: % F	CS Rec	% Rec Limits (Qualifiers				
Chloride	mg/L		0.5	0.5020	1	00	90-110					
LABORATORY CONTR	ROL SAMPLE:	106671										
Parameter	Units		oike onc.	LCS Result	L % F	CS Rec	% Rec Limits (Qualifiers				
Chloride Sulfate	mg/L mg/L		0.5 5	0.4990 5.01		9.8 00	90-110 90-110					
MATRIX SPIKE & MAT	RIX SPIKE DU	PLICATE: 1063	374	1063	75	Orig	inal: 1035	18002				
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers	
Fluoride	mg/L	0.499	1	1.52	1.52	102	102	90-110	0	10		
MATRIX SPIKE & MAT	RIX SPIKE DU	PLICATE: 1063	380	1063	81	Orig	inal: 1035	32005				
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers	
Chloride	mg/L	0.005	1	1.02	1.01	101	101	90-110	0	10		

Report ID: 103518 - 5038398 GPC Report Page 13 of 18

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

MATRIX SPIKE & MA	ATRIX SPIKE DUPL	ICATE: 1063	384	1063	85	Origi	nal: 1035	32005			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit		Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.2	10.2	102	102	90-110	0	10	
MATRIX SPIKE & MA	ATRIX SPIKE DUPL	ICATE: 1066	528	1066	29	Origi	nal: 1035	32003			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit		Max RPD	Qualifiers
Chloride	mg/L	1.4	1	2.37	2.37	96.5	96.7	90-110	0.21	10	

Report ID: 103518 - 5038398 GPC Report Page 14 of 18

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103518 CCR	- Hammond AP										
QC Batch: HG	SPR/1661			Analysis N	Method:	EPA 7	7470A				
QC Batch Method: EP	A 7470A										
Associated Lab Samples:	: 103518001 103520004		18002 20005	10351	18003	103520	001	103520	002		103520003
METHOD BLANK: 10646	60										
Parameter	Units		Blank Result	Reporting Limi) t Qualifiers						
TOTAL METALS Mercury	mg/L	<0.00	00500	0.000500)						
LABORATORY CONTRO	DL SAMPLE: 10	06456									
Parameter	Units		oike onc.	LCS Result		.CS Rec	% Rec Limits 0	Qualifiers			
TOTAL METALS Mercury	mg/L	0.0	122	0.0123	,	101	80-120				
LABORATORY CONTRO	L SAMPLE: 10	06461									
		•				00	0/ 5				
Parameter	Units		oike onc.	LCS Result		.CS Rec	% Rec Limits 0	Qualifiers			
TOTAL METALS											
Mercury	mg/L	0.0	002	0.00194		97	80-120				
MATRIX SPIKE & MATRI	X SPIKE DUPLI	CATE: 1064	157	1064	158	Orig	inal: 1035	17001			
		Origina - I	مدائس	140	MSD	140	MSD	% Rec		N.4	
Parameter	Units	Original Result	Spike Conc.	MS Result	Result	MS % Rec	% Rec		RPD	Max RPD	Qualifiers
TOTAL METALS Mercury	mg/L	0	0.002	0.00201	0.00196	100	98	80-120	2	20	
MATRIX SPIKE & MATRI		CATE: 1064	62	1064	163	Orig	inal: 1035	18001			
		Original	Cnika	MC	Med	MC	MCD	0/ Bcc		Mox	
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS Mercury	mg/L	0	0.002	0.00196	0.00196		98	80-120		20	

Report ID: 103518 - 5038398 GPC Report Page 15 of 18

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103518 CCR - Hammond AP

SAMPLE DUPLICATE:	106459		Original: 1035	17002		
Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers	
TOTAL METALS Mercury	mg/L	<0.000500	<0.000500	0	20	
SAMPLE DUPLICATE:	106464		Original: 1035	18002		
Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers	
TOTAL METALS Mercury	mg/L	<0.000500	<0.000500	0	20	

Report ID: 103518 - 5038398 GPC Report Page 16 of 18

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103518 CCR - Hammond AP

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103518001	HGWC-7	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103518002	HGWC-8	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103518003	HGWA-6	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103518001	HGWC-7	SM 2540C	GRAV/2876		
103518002	HGWC-8	SM 2540C	GRAV/2876		
103518003	HGWA-6	SM 2540C	GRAV/2876		
103518001	HGWC-7	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103518002	HGWC-8	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103518003	HGWA-6	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103518001	HGWC-7	EPA 300	IC/3035		
103518002	HGWC-8	EPA 300	IC/3036		
103518003	HGWA-6	EPA 300	IC/3036		
103518001	HGWC-7	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
103518002	HGWC-8	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
103518003	HGWA-6	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845

Report ID: 103518 - 5038398 GPC Report Page 17 of 18

LABORATORY CERTIFICATIONS

Workorder: 103518 CCR - Hammond AP

С	Certification Program	Certification Number
N	IELAC	E57554

Report ID: 103518 - 5038398 GPC Report Page 18 of 18

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratory

2480 Maner Road, Bin 39110 Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

CHAIN OF CUSTODY RECORD ANALYSIS REQUEST AND

	Work Orde	Reviewed	
IAB	USE	ONLY	

12 Page

¹³Standard Turnaround Time

Sampled By: 9 Andreas Shordits (AS) Myles Rogers (MR)

Report To Joju Abraham & SE Blowers 22th Ralph McGill Blud, SE Blowers

Company: 1 Southern Company Services

Sample Shipment Date: 8 5-20-2019

# of Business Days (Rush)	(Must be cleared through Env. Lab. prior to shipmen

	Sample Type Key: 23 G-Grab		Matrix Key: 24 0-0il SW-Surface Water S-Solid GW-Ground Water	age	Preservative Key: 25	H-Hydrochloric Acid N-Mirric Acid S-Sulfuric Acid SH-Sodium Hydroxide	P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved D-Amer (Soseried
	PRESERVATIVE 21	1403 Tro (1402	7	ANALYSIS REQUESTED 22	a	822+ 707 008 th thtw	Jidys
	Signature	Sample Received Date: 10	Sample Received By: 11	Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.	18 19 20		9qyT :
AH. 1. 14 20.200.	Milaneta, or 1 30 300	Phone/Fax: 3 404-506-7239	Contact: 4 Joju Abraham	Project Location: 5 Plant Hermond	Account Number: 6	Special Instructions: 7 Hammon of AP CCR 6W	I AD HEE

ONLY 14	7 14	Sample Number	Collection	ction	Sample Description 17	oldr		_	fer	17	5		I AB LICE ONIV 26
LAB ID	0		Date	Time		Sam	tsM	.oN	ME	'n	100 mg		Comments
1035R	1008	1035/8001 H6WC-7	5-20-110	80:80	5-20-16 09:05 Hammond AP GW	9	(500	20			-		8
	7		520-14	83:09	520-14 07:09 Hammond AP 600	9	35	3			-		NA
>	3		5-20-16	09:23	5-20-16 09:23 Hammond APGW	5		3			-		The
Pac		FOR CHAIN OF CUSTODY USE ONLY 27	OF CUSTOD!	/ USE ONLY	. 27				LAB	USE ON	LY: Sample Re	LAB USE ONLY: Sample Receipt Information 30	
Relinquished by: 28	ished l	by: 28 M	1	Date/Time	Date/Time 5-20-2016 13:15 5	3) 6 5	78	1-1K	26	"Jul	thice	5.5 % (BPSt- 118 4/2), withing, cooler in good Condition, seen	dition, sen
Peceived by: 29	ed by:	29	W	Date/Time		HLL, H	lena	-)	
Relinquished by:	ished t	by:		Date/Time									
Received by:	ed by:		Should	Date/Time									
					1								

Sample Receipt Checklist



Client:

Hammond

103518

Workorder No.: Carrier:

HAND

of Samples:

3

Tracking No:

Question		Answer	Comment
Radioactivity wasn't checked or is <= background a survey meter	as measured by	True	
Custody seals were present on cooler		True	
Custody seals on cooler were intact		True	
Custody seals were present on sample		False	
The cooler or samples do not appear to have been tampered with	compromised or	True	
Samples were received on ice	6	True	
Cooler temperature is acceptable		True	
Cooler temperature is recorded		True	5.5
COC is present		True	
COC is filled out in ink and is legible		True	
COC is filled out with pertinent information		True	
The field sampler's name is on the COC		True	
Sample containers have legible labels		True	
Information on the sample label agrees with inforn	nation on the	True	
Samples are received within holding times		True	
Containers are not broken or leaking		True	
Sample collection date/times are present		True	
Appropriate sample containers are used		True	
Sample bottles are completely filled		True	
Sample preservation is checked		True	
Sample preservation is acceptable		True	
There is sufficient sample volume for all requested	l analyses	True	
Containers requiring zero headspace have no head bubble is < 6mm (1/4 inch)		True	
Multiphasic samples are not present		True	
Samples do not require splitting or compositing		True	

Date: 05/20/2016

Receiving Narrative:

No non-conformance noticed.



2480 Maner Road Atlanta, Ga. 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

June 10, 2016

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

RE: Workorder: 103533 CCR - Hammond AP

Dear Joju Abraham:

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

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

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

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

L. Biddy

Ibbiddy@southernco.com

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

Respectfully submitted,

R. S. Dickerson rsdicker@southernco.com

QA/QC Specialist

Report ID: 103533 - 5038610 GPC Report Page 1 of 26

SAMPLE SUMMARY

Workorder: 103533 CCR - Hammond AP

Lab ID	Sample ID	Analysis Request Numbe	r Matrix	Date Collected	Date Received
103533001	HGWA-1	N/A	Water	5/19/2016 09:30	5/20/2016 08:15
103533002	HGWA-2	N/A	Water	5/19/2016 11:26	5/20/2016 08:15
103533003	HGWA-4	N/A	Water	5/19/2016 17:37	5/20/2016 08:15
103533004	HGWA-3	N/A	Water	5/19/2016 16:05	5/20/2016 08:15
103533005	DUP-1	N/A	Water	5/19/2016 00:00	5/20/2016 08:15
103533006	HGWA-5	N/A	Water	5/19/2016 10:27	5/20/2016 08:15

Report ID: 103533 - 5038610 GPC Report Page 2 of 26

CERTIFICATE OF ANALYSIS

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

 Lab ID:
 103533001
 Date Received:
 5/20/2016 08:15

 Sample ID:
 HGWA-1
 Date Collected:
 5/19/2016 09:30

 Sample Description
 Hammond AP GW
 Matrix:
 Water

Sample ID: HGWA-1					Date Collected: 5/19/2016 09:30				
Sample Description	Hammond AP	GW			Matr	ix:	Water		
Location	Hammond AP	ı							
Parameters	Results	Units	MDL	RL Prepa	ared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D		Preparation I	Method: EPA 3005	5A				
•			·	thod: EPA 6010D					
INORGANICS			•		2016 10:40	KLW	6/8/2016 11:05	MRP	
Calcium	138 ı	mg/L	1.00	5.00 5/26/2	2016 10:40	KLW	6/8/2016 11:05	MRP	
Analysis Desc: EPA 60	20B		Preparation I	Method: EPA 3005	5A				
			Analytical Me	thod: EPA 6020B					
TOTAL METALS				5/26/2	2016 10:15	KLW	5/27/2016 14:26	ELS	
Analysis Desc: EPA 74	70A		Preparation I	Method: EPA 7470)A				
			Analytical Me	thod: EPA 7470A					
Mercury	<0.000500	mg/L	0.000250	0.000500 5/26/2		WCM	5/27/2016 08:30	WCM	
Analysis Desc: EPA 60	20B	-	Prenaration I	Method: EPA 3005	5Δ				
7 inalysis 2 300. 21 7 (00.			·	thod: EPA 6020B					
Lithium	<0.0500 ı	ma/L	0.0100	0.0500 5/26/2		KLW	5/27/2016 14:26	ELS	
Beryllium	<0.00300	J	0.000600	0.00300 5/26/2		KLW	5/27/2016 14:26	ELS	
Boron	0.0214J ı	-	0.0200	0.100 5/26/2		KLW	5/27/2016 14:26	ELS	
Chromium	<0.0100 i	•	0.00200	0.0100 5/26/2		KLW	5/27/2016 14:26	ELS	
Cobalt	<0.0100 i	J	0.00200	0.0100 5/26/2		KLW	5/27/2016 14:26	ELS	
Arsenic Selenium	<0.00500 i <0.0100 i	Ū	0.00100 0.00200	0.00500 5/26/2 0.0100 5/26/2		KLW KLW	5/27/2016 14:26 5/27/2016 14:26	ELS ELS	
Molybdenum	<0.0100 i	•	0.00200	0.0100 5/26/2		KLW	5/27/2016 14:26	ELS	
Cadmium	<0.00100 i	J	0.00200	0.00100 5/26/2		KLW	5/27/2016 14:26	ELS	
Antimony	<0.00300 i	J	0.000600	0.00300 5/26/2		KLW	5/27/2016 14:26	ELS	
Barium	0.0346 ı	J	0.00200	0.0100 5/26/2		KLW	5/27/2016 14:26	ELS	
Thallium	<0.00100 ı	-	0.000200	0.00100 5/26/2		KLW	5/27/2016 14:26	ELS	
Lead	<0.00500 ı	mg/L	0.00100	0.00500 5/26/2	2016 10:15	KLW	5/27/2016 14:26	ELS	
Analysis Desc: EPA 30	0		Analytical Me	ethod: EPA 300					
TOTAL NUTRIENTS							6/3/2016 11:15	LBB	
Sulfate	66.9 ı	mg/L	3.00	10.0			6/3/2016 11:15	LBB	
Chloride	9.94 ı	mg/L	0.4000	2.50			6/3/2016 11:15	LBB	
Fluoride	0.1050J ı	mg/L	0.0100	0.3000			6/3/2016 06:46	LBB	
Analysis Desc: SM 254	OC		Analytical Me	thod: SM 2540C					
WET CHEMISTRY							5/24/2016 18:35	KLW	

Report ID: 103533 - 5038610 GPC Report Page 3 of 26

CERTIFICATE OF ANALYSIS

5/20/2016 08:15

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

Lab ID: 103533001 Sample ID: HGWA-1

Sample Description Hammond AP GW

Location **Hammond AP**

5/19/2016 09:30 **Date Collected:** Matrix: Water

Date Received:

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	421 mg/L	25	25		5/24/2016 18:35	KLW	

Report ID: 103533 - 5038610 GPC Report Page 4 of 26

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

 Lab ID:
 103533002
 Date Received:
 5/20/2016 08:15

 Sample ID:
 HGWA-2
 Date Collected:
 5/19/2016 11:26

Sample ID:	HGWA-2			Conecie		.20	
Sample Description	Hammond AP GW		Mati	rix:	Water		
Location	Hammond AP						
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6010D				
INORGANICS Calcium	22.9 mg/L	0.100	5/26/2016 10:40 0.500 5/26/2016 10:40	KLW KLW	6/7/2016 15:28 6/7/2016 15:28	MRP MRP	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
TOTAL METALS		.,	5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Analysis Desc: EPA 74	70A	Preparation N	Method: EPA 7470A				
		Analytical Me	thod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/26/2016 06:33	WCM	5/27/2016 08:33	WCM	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Boron	0.0321J mg/L	0.0200	0.100 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Cobalt	0.0293 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Arsenic	0.00127J mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Barium	0.114 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 14:30	ELS	
				11211	0,21,201011.00		
Analysis Desc: EPA 30	0	Analytical Me	thod: EPA 300		0/0/0040444	1.00	
TOTAL NUTRIENTS					6/3/2016 11:45	LBB	
Sulfate	48.6 mg/L	1.50	5.00		6/3/2016 11:45	LBB	
Chloride	6.14 mg/L	0.2000	1.25		6/3/2016 11:45	LBB	
Fluoride	0.0303J mg/L	0.0100	0.3000		6/3/2016 07:15	LBB	
Analysis Desc: SM 254	10C	Analytical Me	thod: SM 2540C				
WET CHEMISTRY		,a.,a. 1010			5/24/2016 18:35	KLW	
METOHEIMISTRY					3/24/2010 10:33	I\LVV	

Report ID: 103533 - 5038610 GPC Report Page 5 of 26

CERTIFICATE OF ANALYSIS

5/20/2016 08:15

5/19/2016 11:26

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

Lab ID: 103533002 Sample ID: HGWA-2

Sample Description Hammond AP GW

Location Hammond AP

Hammond AP GW Matrix: Water
Hammond AP

Date Received:

Date Collected:

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	143 mg/L	25	25		5/24/2016 18:35	KLW	

Report ID: 103533 - 5038610 GPC Report Page 6 of 26

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

 Lab ID:
 103533003
 Date Received:
 5/20/2016 08:15

 Sample ID:
 HGWA-4
 Date Collected:
 5/19/2016 17:37

Sample Description	Hammond AP GW		М	atrix:	Water		
Location	Hammond AP		B. B				
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6010D				
INORGANICS		•	6/8/2016 09:30	MRP	6/8/2016 14:45	MRP	
Calcium	48.4 mg/L	0.100	0.500 6/8/2016 09:30	MRP	6/8/2016 14:45	MRP	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
TOTAL METALS			5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Analysis Desc: EPA 74	70A	Preparation N	Method: EPA 7470A				
		Analytical Me	thod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/26/2016 06:33	WCM	5/27/2016 08:36	WCM	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
·		·	thod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Boron	<0.100 mg/L	0.0200	0.100 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Barium	0.0266 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:35	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10:15		5/27/2016 14:35	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15		5/27/2016 14:35	ELS	
Analysis Desc: EPA 30	0	Analytical Me	thod: EPA 300				
TOTAL NUTRIENTS					6/3/2016 12:15	LBB	
Sulfate	1.22 mg/L	0.3000	1.00		6/3/2016 07:45	LBB	
Chloride	4.56 mg/L	0.0800	0.5000		6/3/2016 12:15	LBB	
Fluoride	0.0360J mg/L	0.0100	0.3000		6/3/2016 07:45	LBB	
1401140	0.00000 mg/L	0.0100	0.0000		3,3,2010 01.40		
Analysis Desc: SM 254	10C	Analytical Me	thod: SM 2540C				
WET CHEMISTRY					5/24/2016 18:35	KLW	

Report ID: 103533 - 5038610 GPC Report Page 7 of 26

CERTIFICATE OF ANALYSIS

5/20/2016 08:15

5/19/2016 17:37

Water

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Date Collected:

Matrix:

Workorder: 103533 CCR - Hammond AP

Lab ID: 103533003 Sample ID: HGWA-4

Sample Description Hammond AP GW

Location Hammond AP

Parameters Results Units MDL RL Prepared By Analyzed By Qual
TDS 165 mg/L 25 25 5/24/2016 18:35 KLW

Report ID: 103533 - 5038610 GPC Report Page 8 of 26

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

Lab ID:103533004Date Received:5/20/2016 08:15Sample ID:HGWA-3Date Collected:5/19/2016 16:05Sample DescriptionHammond AP GWMatrix:Water

						.	
Sample Description	Hammond AP GW			Matrix:	Water		
Location	Hammond AP						
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	010D	Preparation M	lethod: EPA 3005A				
		Analytical Met	hod: EPA 6010D				
INORGANICS		•	5/26/2016 10:	40 KLW	6/7/2016 15:52	MRP	
Calcium	76.2 mg/L	1.00	5.00 5/26/2016 10:		6/7/2016 15:52	MRP	
Analysis Desc: EPA 60)20B	Preparation M	lethod: EPA 3005A				
		Analytical Met	hod: EPA 6020B				
TOTAL METALS			5/26/2016 10:	15 KLW	5/27/2016 14:40	ELS	
Analysis Desc: EPA 74	70A	Preparation M	lethod: EPA 7470A				
		Analytical Met	hod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/26/2016 06:	33 WCM	5/27/2016 08:38	WCM	
Analysis Desc: EPA 60)20B	Preparation M	lethod: EPA 3005A				
		Analytical Met	hod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:	15 KLW	5/27/2016 14:40	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:		5/27/2016 14:40	ELS	
Boron	<0.100 mg/L	0.0200	0.100 5/26/2016 10:		5/27/2016 14:40	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:		5/27/2016 14:40	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:	15 KLW	5/27/2016 14:40	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:	15 KLW	5/27/2016 14:40	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:	15 KLW	5/27/2016 14:40	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:	15 KLW	5/27/2016 14:40	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016 10:	15 KLW	5/27/2016 14:40	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:		5/27/2016 14:40	ELS	
Barium	0.111 mg/L	0.00200	0.0100 5/26/2016 10:		5/27/2016 14:40	ELS	
Thallium	<0.00100 mg/L	0.00200	0.00100 5/26/2016 10:		5/27/2016 14:40	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:		5/27/2016 14:40	ELS	
				15 KLVV	5/27/2016 14.40	ELS	
Analysis Desc: EPA 30	00	Analytical Met	hod: EPA 300				
TOTAL NUTRIENTS					6/3/2016 12:45	LBB	
Sulfate	42.3 mg/L	1.50	5.00		6/3/2016 12:45	LBB	
Chloride	5.93 mg/L	0.2000	1.25		6/3/2016 12:45	LBB	
Fluoride	0.0513J mg/L	0.0100	0.3000		6/3/2016 08:15	LBB	
Analysis Desc: SM 254	400	Analytical Met	hod: SM 2540C				
WET CHEMISTRY					5/24/2016 18:35	KLW	

Report ID: 103533 - 5038610 GPC Report Page 9 of 26

CERTIFICATE OF ANALYSIS

KLW

5/20/2016 08:15

5/19/2016 16:05

Water

5/24/2016 18:35

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Date Collected:

Matrix:

Workorder: 103533 CCR - Hammond AP

Lab ID: 103533004 Sample ID: HGWA-3

TDS

Sample Description Hammond AP GW

267 mg/L

 Location
 Hammond AP

 Parameters
 Results Units
 MDL
 RL Prepared
 By Analyzed
 By Qual

25

25

Report ID: 103533 - 5038610 GPC Report Page 10 of 26

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

 Lab ID:
 103533005
 Date Received:
 5/20/2016 08:15

 Sample ID:
 DUP-1
 Date Collected:
 5/19/2016 00:00

 Sample Description
 Hammond AP GW
 Matrix:
 Water

Sample Description Hammond AP GW Matrix: Water Location Hammond AP Parameters Results Units MDL RL Prepared By Analyzed Analysis Desc: EPA 6010D Preparation Method: EPA 3005A Analytical Method: EPA 6010D KLW 6/7/2016 15:58 INORGANICS Calcium 5/26/2016 10:40 KLW 6/7/2016 15:58 KLW 6/7/2016 15:58 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A Analytical Method: EPA 6020B KLW 5/27/2016 14:45 TOTAL METALS 5/26/2016 10:15 KLW 5/27/2016 14:45 KLW 5/27/2016 14:45 Analysis Desc: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 7470A WCM 5/27/2016 08:41 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A Analytical Method: EPA 6020B WCM 5/27/2016 08:41	
Parameters Results Units MDL RL Prepared By Analyzed Analysis Desc: EPA 6010D Preparation Method: EPA 3005A Analytical Method: EPA 6010D INORGANICS Calcium 5/26/2016 10:40 75.5 mg/L KLW 6/7/2016 15:58 KLW 6/7/2016 15:58 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A Analytical Method: EPA 6020B TOTAL METALS 5/26/2016 10:15 KLW 5/27/2016 14:45 Analysis Desc: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 7470A Mercury <0.000500 mg/L 0.000250 0.000500 5/26/2016 06:33 WCM 5/27/2016 08:41 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A	
Analysis Desc: EPA 6010D	
Analytical Method: EPA 6010D INORGANICS Calcium 75.5 mg/L Analysis Desc: EPA 6020B TOTAL METALS Analysis Desc: EPA 7470A Analysis Desc: EPA 7470A Mercury Analysis Desc: EPA 6020B Analysis Desc: EPA 6020B Preparation Method: EPA 7470A Analytical Method: EPA 3005A	By Qual
S	
Calcium 75.5 mg/L 1.00 5.00 5/26/2016 10:40 KLW 6/7/2016 15:58 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A	
Analytical Method: EPA 6020B TOTAL METALS 5/26/2016 10:15 KLW 5/27/2016 14:45 Analysis Desc: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 7470A Mercury <0.000500 mg/L 0.000250 0.000500 5/26/2016 06:33 WCM 5/27/2016 08:41 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A	MRP MRP
TOTAL METALS 5/26/2016 10:15 KLW 5/27/2016 14:45 Analysis Desc: EPA 7470A Analytical Method: EPA 7470A Mercury <0.000500 mg/L 0.000250 0.000500 5/26/2016 06:33 WCM 5/27/2016 08:41 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A	
TOTAL METALS 5/26/2016 10:15 KLW 5/27/2016 14:45 Analysis Desc: EPA 7470A Analytical Method: EPA 7470A Mercury <0.000500 mg/L 0.000250 0.000500 5/26/2016 06:33 WCM 5/27/2016 08:41 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A	
Analytical Method: EPA 7470A Mercury <0.000500 mg/L 0.000250 0.000500 5/26/2016 06:33 WCM 5/27/2016 08:41 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A	ELS
Mercury <0.000500 mg/L 0.000250 0.000500 5/26/2016 06:33 WCM 5/27/2016 08:41 Analysis Desc: EPA 6020B Preparation Method: EPA 3005A	
Analysis Desc: EPA 6020B Preparation Method: EPA 3005A	
	WCM
Analytical Method: EPA 6020B	
Lithium <0.0500 mg/L 0.0100 0.0500 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Beryllium <0.00300 mg/L 0.000600 0.00300 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Boron <0.100 mg/L 0.0200 0.100 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Chromium <0.0100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Cobalt <0.0100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Arsenic <0.00500 mg/L 0.00100 0.00500 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Selenium <0.0100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Molybdenum <0.0100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Cadmium <0.00100 mg/L 0.000100 0.00100 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Antimony <0.00300 mg/L 0.000600 0.00300 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Barium 0.116 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Thallium <0.00100 mg/L 0.000200 0.00100 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Lead <0.00500 mg/L 0.00100 0.00500 5/26/2016 10:15 KLW 5/27/2016 14:45	ELS
Analysis Desc: EPA 300 Analytical Method: EPA 300	
TOTAL 6/3/2016 13:14 NUTRIENTS	LBB
Sulfate 44.4 mg/L 1.50 5.00 6/3/2016 13:14	LBB
Chloride 6.22 mg/L 0.2000 1.25 6/3/2016 13:14	LBB
Fluoride 0.0519J mg/L 0.0100 0.3000 6/3/2016 08:45	LBB
Analysis Desc: SM 2540C Analytical Method: SM 2540C	
WET CHEMISTRY 5/24/2016 18:35	

Report ID: 103533 - 5038610 GPC Report Page 11 of 26

CERTIFICATE OF ANALYSIS

5/20/2016 08:15

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

Lab ID: 103533005 Sample ID: DUP-1

Sample Description Hammond AP GW

Location Hammond AP

DUP-1 Date Collected: 5/19/2016 00:00

Matrix: Water

Date Received:

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	265 mg/L	25	25		5/24/2016 18:35	KLW	

Report ID: 103533 - 5038610 GPC Report Page 12 of 26

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

 Lab ID:
 103533006
 Date Received:
 5/20/2016 08:15

 Sample ID:
 HGWA-5
 Date Collected:
 5/19/2016 10:27

Sample ID:	HGWA-5		Date	e Collecte	d: 5/19/2016 10	0:27	
Sample Description	Hammond AP GW		Mat	rix:	Water		
Location	Hammond AP						
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	110D	Preparation	Method: EPA 3005A				
		Analytical M	ethod: EPA 6010D				
INORGANICS Calcium	35.5 mg/L	0.100	5/26/2016 10:40 0.500 5/26/2016 10:40	KLW KLW	6/7/2016 16:04 6/7/2016 16:04	MRP MRP	
Analysis Desc: EPA 60	20B	Preparation	Method: EPA 3005A				
Allalysis Desc. El A so	200	·					
TOTAL METALS		Analytical M	ethod: EPA 6020B 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
TOTAL METALS			5/26/2016 10:15	KLVV	5/27/2016 14:49	ELS	
Analysis Desc: EPA 74	70A	Preparation	Method: EPA 7470A				
		Analytical M	ethod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/26/2016 06:33	WCM	5/27/2016 08:44	WCM	
Analysis Desc: EPA 60	20B	Preparation	Method: EPA 3005A				
		Analytical M	ethod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Boron	<0.100 mg/L	0.0200	0.100 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Barium	0.0519 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 14:49	ELS	
Analysis Desc: EPA 30	00	Analytical M	ethod: EPA 300				
TOTAL NUTRIENTS					6/3/2016 09:15	LBB	
Sulfate	25.0 mg/L	0.3000	1.00		6/3/2016 09:15	LBB	
Chloride	1.57 mg/L	0.0400	0.2500		6/3/2016 09:15	LBB	
Fluoride	0.0800J mg/L	0.0100	0.3000		6/3/2016 09:15	LBB	
Analysis Desc: SM 254	40C	Analytical M	ethod: SM 2540C				
WET CHEMISTRY					5/24/2016 18:35	KLW	

Report ID: 103533 - 5038610 GPC Report Page 13 of 26

CERTIFICATE OF ANALYSIS

5/20/2016 08:15

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103533 CCR - Hammond AP

Lab ID: 103533006 Sample ID: HGWA-5

Sample Description Hammond AP GW

Location Hammond AP

HGWA-5 Date Collected: 5/19/2016 10:27 Hammond AP GW Matrix: Water

Date Received:

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	168 mg/L	25	25		5/24/2016 18:35	KLW	

Report ID: 103533 - 5038610 GPC Report Page 14 of 26

Atlanta, Ga. 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS QUALIFIERS

Workorder: 103533 CCR - Hammond AP

PARAMETER QUALIFIERS

ND None detected at the laboratory Method Detection Limit

MDL Method Detection Limit

RL Reporting Limit

J The reported value is between the laboratory method detection limit and the laboratory reporting limit

Report ID: 103533 - 5038610 GPC Report Page 15 of 26

QUALITY CONTROL DATA

Workorder: 103533 CCR - Hammond AP QC Batch: GRAV/2877 Analysis Method: SM 2540C QC Batch Method: SM 2540C 103533002 103533003 103533004 103533005 103533006 Associated Lab Samples: 103533001 METHOD BLANK: 106282 Reporting Blank Units Result Limit Qualifiers Parameter WET CHEMISTRY **TDS** mg/L <25 25 LABORATORY CONTROL SAMPLE: 106285 Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers WET CHEMISTRY **TDS** mg/L 241 240 99.6 90-110 SAMPLE DUPLICATE: 106283 Original: 103532001 Original DUP Max Result RPD **RPD Qualifiers** Units Parameter Result WET CHEMISTRY 20 TDS mg/L 99 96 3.1 SAMPLE DUPLICATE: 106284 Original: 103533006 Original DUP Max **RPD Qualifiers** Parameter Units Result Result **RPD** WET CHEMISTRY

Report ID: 103533 - 5038610 GPC Report Page 16 of 26 mg/L

168

TDS

CERTIFICATE OF ANALYSIS

168

0

20

QUALITY CONTROL DATA

Workorder: 103533	CCR - I	Hammond AP										
QC Batch:	IC/30	35			Analysis Me	ethod:	EPA	300				
QC Batch Method:	EPA:	300										
Associated Lab Sam	ples:	103518001 103533006	103	533001	103533	002	10353	3003	103533	004		103533005
METHOD BLANK: 1	06360											
Parameter		Units		Blank Result	Reporting Limit (Qualifiers						
Chloride		mg/L	<0	.2500	0.2500							
Sulfate		mg/L		<1.00	1.00							
Fluoride		mg/L	<0	0.3000	0.3000							
LABORATORY CON	TROL	SAMPLE: 10	06353									
			S	pike	LCS		_CS	% Rec				
Parameter		Units		onc.	Result		Rec		Qualifiers			
Chloride		mg/L	,	11.3	11.9		105	90-110				
Fluoride		mg/L		6.83	6.92		101	90-110				
LABORATORY CON	TROL	SAMPLE: 10	06361									
			S	pike	LCS	ı	_CS	% Rec				
Parameter		Units		onc.	Result	%	Rec	Limits	Qualifiers			
Chloride		mg/L		0.5	0.4843	(96.9	90-110				
Sulfate		mg/L		5	4.95		99	90-110				
Fluoride		mg/L		0.5	0.5255		105	90-110				
MATRIX SPIKE & M/	ATRIX	SPIKE DUPLIC	CATE: 1063	356			Ori	ginal: 103	3517002			
Parameter		Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec			RPD	Max RPD	Qualifiers
Fluoride		mg/L	0	1	1.07		107	(90-110	0	0	
MATRIX SPIKE & MA	ATRIX	SPIKE DUPLI	CATE: 1063	366	10636	7	Ori	ginal: 103	517006			
Parameter		Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec			RPD	Max RPD	Qualifiers
Sulfate		mg/L	9.58	10	19.4	19.4	98.1	98	3 90-110	0.1	10	

Report ID: 103533 - 5038610 GPC Report Page 17 of 26

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103533 CCR -	· Hammond AP						
QC Batch: HGF	PR/1661		Analysis Method:	EF	PA 7470A		
QC Batch Method: EPA	7470A						
Associated Lab Samples:	103518001 103520004 103533005	103518002 103520005 103533006	103518003 103533001		520001 533002	103520002 103533003	103520003 103533004
METHOD BLANK: 106454	1						
Parameter	Units	Blank Result	Reporting Limit Qualif	iers			
TOTAL METALS							
Mercury	mg/L	<0.000500	0.000500				
METHOD BLANK: 106460)						
		Blank	Reporting				
Parameter	Units	Result	Limit Qualif	iers			
TOTAL METALS Mercury	mg/L	<0.000500	0.000500				
LABORATORY CONTROL	SAMPLE: 1064	55					
		Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec		Qualifiers	
TOTAL METALS Mercury	mg/L	0.002	0.00199	100	80-120		
LABORATORY CONTROL	SAMPLE: 1064	56					
		Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec		Qualifiers	
TOTAL METALS							
Mercury	mg/L	0.0122	0.0123	101	80-120		
LABORATORY CONTROL	SAMPLE: 1064	61					
		Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers	
TOTAL METALS Mercury	mg/L	0.002	0.00194	97	80-120		

Report ID: 103533 - 5038610 GPC Report Page 18 of 26

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103533 CCR - Hammond AP

MATRIX SPIKE & MATR	IX SPIKE DUPL	ICATE: 1064	57	1064	158	Origi	nal: 1035	17001			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS Mercury	mg/L	0	0.002	0.00201	0.00196	100	98	80-120	2	20	
MATRIX SPIKE & MATR	IX SPIKE DUPL	ICATE: 1064	62	1064	163	Origi	nal: 1035	18001			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS Mercury	mg/L	0	0.002	0.00196	0.00196	98	98	80-120	0	20	
SAMPLE DUPLICATE:	106459			Original: 1	03517002						
Parameter	Units	Origi Res		DUP Result	R	PD	Max RPD C	ualifiers			
TOTAL METALS Mercury	mg/L	<0.0005	500 -	<0.000500		0	20				
SAMPLE DUPLICATE:	106464			Original: 1	03518002						
Parameter	Units	Origi Res		DUP Result	R	PD	Max RPD C	ualifiers			
TOTAL METALS Mercury	mg/L	<0.0005	500 -	<0.000500		0	20				

Report ID: 103533 - 5038610 GPC Report Page 19 of 26

QUALITY CONTROL DATA

Workorder: 103533 CCR - Hammond AP

QC Batch: DIGM/4329 Analysis Method: EPA 6010D

QC Batch Method: EPA 3005A

Associated Lab Samples: 103533001 103533002 103533004 103533005 103533006

METHOD BLANK: 106465

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

LABORATORY CONTROL SAMPLE: 106466

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
INORGANICS Calcium	mg/L	5	4.87	97.5	80-120

Report ID: 103533 - 5038610 GPC Report Page 20 of 26

QUALITY CONTROL DATA

Workorder: 103533 CCR - Hammond AP

DIGM/4330

Analysis Method: QC Batch Method: EPA 3005A

EPA 6020B

Associated Lab Samples: 103533001 103533002 103533003 103533004 103533005 103533006

METHOD BLANK: 106469

QC Batch:

Parameter Units Blank Result Reporting Limit Qualifiers TOTAL METALS Lithium mg/L <0.0500 0.0500 Beryllium mg/L <0.00300 0.00300 Boron mg/L <0.100 0.100 Chromium mg/L <0.0100 0.0100 Cobalt mg/L <0.0100 0.0100 Arsenic mg/L <0.00500 0.00500 Selenium mg/L <0.0100 0.0100 Molybdenum mg/L <0.0100 0.0100 Cadmium mg/L <0.00100 0.00100
TOTAL METALS Lithium mg/L <0.0500
Lithium mg/L <0.0500 0.0500 Beryllium mg/L <0.00300
Beryllium mg/L <0.00300 0.00300 Boron mg/L <0.100
Boron mg/L <0.100 0.100 Chromium mg/L <0.0100
Chromium mg/L <0.0100 0.0100 Cobalt mg/L <0.0100
Cobalt mg/L <0.0100 0.0100 Arsenic mg/L <0.00500
Arsenic mg/L <0.00500 0.00500 Selenium mg/L <0.0100
Selenium mg/L <0.0100 0.0100 Molybdenum mg/L <0.0100
Molybdenum mg/L <0.0100 0.0100
,
Cadmium ma/L <0.00100 0.00100
5
Antimony mg/L <0.00300 0.00300
Barium mg/L <0.0100 0.0100
Thallium mg/L <0.00100 0.00100
Lead mg/L <0.00500 0.00500

LABORATORY CONTROL SAMPLE: 106470

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Lithium	mg/L	0.2	0.203	102	80-120
Beryllium	mg/L	0.1	0.0942	94.2	80-120
Boron	mg/L	0.3	0.291	97.1	80-120
Chromium	mg/L	0.1	0.0981	98.1	80-120
Cobalt	mg/L	0.1	0.0989	98.9	80-120
Arsenic	mg/L	0.1	0.0943	94.3	80-120
Selenium	mg/L	0.1	0.0944	94.4	80-120
Molybdenum	mg/L	0.1	0.0939	93.9	80-120
Cadmium	mg/L	0.1	0.0963	96.3	80-120
Antimony	mg/L	0.1	0.0960	96	80-120
Barium	mg/L	0.1	0.0962	96.2	80-120
Thallium	mg/L	0.1	0.0867	86.7	80-120
Lead	mg/L	0.1	0.0894	89.4	80-120

Report ID: 103533 - 5038610 GPC Report Page 21 of 26

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103533 CCR - Hammond AP

MATRIX SPIKE & MATE	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106471			106472		Original: 103563002					
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.0107	0.2	0.212	0.213	101	101	75-125	0	20	
Beryllium	mg/L	5e-006	0.1	0.0988	0.0940	98.8	94	75-125	5	20	
Chromium	mg/L	0.00017	0.1	0.108	0.104	108	104	75-125	3.8	20	
Cobalt	mg/L	0.00178	0.1	0.107	0.104	105	103	75-125	1.9	20	
Arsenic	mg/L	0.0046	0.1	0.111	0.107	107	102	75-125	4.8	20	
Selenium	mg/L	0.00023	0.1	0.103	0.0962	103	95.9	75-125	7.1	20	
Cadmium	mg/L	1.1e-005	0.1	0.106	0.103	106	103	75-125	2.9	20	
Antimony	mg/L	0.00013	0.1	0.110	0.107	110	107	75-125	2.8	20	
Thallium	mg/L	8.8e-005	0.1	0.0956	0.0932	95.5	93.1	75-125	2.5	20	
Lead	mg/L	3.7e-005	0.1	0.0986	0.0953	98.6	95.3	75-125	3.4	20	
MATRIX SPIKE & MATE	RIX SPIKE DUP	LICATE: 1064	71	1064	72	Origir	nal: 10356	63002			
		Original	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Result	Result	% Rec	% Rec	Limit	RPD	RPD	Qualifiers
TOTAL METALS											
Boron	mg/L	2.2	0.3	2.54	2.51	113	104	75-125	8.3	20	
Molybdenum	mg/L	0.0413	0.1	0.149	0.146	108	105	75-125	2.8	20	
Barium	mg/L	0.133	0.1	0.239	0.235	106	102	75-125	3.8	20	

Report ID: 103533 - 5038610 GPC Report Page 22 of 26

QUALITY CONTROL DATA

Workorder: 103533 CCR - Hammond AP

QC Batch: DIGM/4348 Analysis Method: EPA 6010D

QC Batch Method: EPA 3005A

Associated Lab Samples: 103533003

METHOD BLANK: 106745

INORGANICS

Calcium mg/L <0.500 0.500

LABORATORY CONTROL SAMPLE: 106746

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers **INORGANICS** Calcium mg/L 10 10.5 105 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106467 106468 Original: 103533003

MSD Original Spike MS MS MSD % Rec Max Limit RPD RPD Qualifiers Parameter Units Result Conc. Result Result % Rec % Rec **INORGANICS** Calcium mg/L 48.4 10 58.6 58.8 103 104 75-125 0.97 20

Report ID: 103533 - 5038610 GPC Report Page 23 of 26

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103533 CCR - Hammond AP

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103533001	HGWA-1	SM 2540C	GRAV/2877		
103533002	HGWA-2	SM 2540C	GRAV/2877		
103533003	HGWA-4	SM 2540C	GRAV/2877		
103533004	HGWA-3	SM 2540C	GRAV/2877		
103533005	DUP-1	SM 2540C	GRAV/2877		
103533006	HGWA-5	SM 2540C	GRAV/2877		
103533001	HGWA-1	EPA 300	IC/3035		
103533002	HGWA-2	EPA 300	IC/3035		
03533003	HGWA-4	EPA 300	IC/3035		
03533004	HGWA-3	EPA 300	IC/3035		
03533005	DUP-1	EPA 300	IC/3035		
103533006	HGWA-5	EPA 300	IC/3035		
03533001	HGWA-1	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
03533002	HGWA-2	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
03533003	HGWA-4	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
03533004	HGWA-3	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
03533005	DUP-1	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
03533006	HGWA-5	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
03533001	HGWA-1	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
03533002	HGWA-2	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
03533004	HGWA-3	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
03533005	DUP-1	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
03533006	HGWA-5	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
03533001	HGWA-1	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
03533002	HGWA-2	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
03533003	HGWA-4	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
03533004	HGWA-3	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
03533005	DUP-1	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
03533006	HGWA-5	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079

Report ID: 103533 - 5038610 GPC Report Page 24 of 26

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103533 CCR - Hammond AP

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103533003	HGWA-4	EPA 3005A	DIGM/4348	EPA 6010D	ICP/5029

Report ID: 103533 - 5038610 GPC Report Page 25 of 26

LABORATORY CERTIFICATIONS

Workorder: 103533 CCR - Hammond AP

С	Certification Program	Certification Number
N	IELAC	E57554

Report ID: 103533 - 5038610 GPC Report Page 26 of 26

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratory

2480 Maner Road, Bin 39110 Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

CHAIN OF CUSTODY RECORD ANALYSIS REQUEST AND

103533	11 5-3-16
Work Order No.	Reviewed By:
LAB	ONLY

of

12 Page

13 Standard Turnaround Time

of Business Days (Rush)

Sampled By: 9 Myles Rosers (MR) Sample Shipment Date: 8 5-20-2016

Report To Joju Abraham Address: 224 Ralph McGill Blud SE

BIOLES ANTENDER JOSUB

Phone/Fax: 3 404-506-7239

Company: 1 Southern Confound Services

(Must be cleared through Env. Lab. prior to shipment)

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SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water OW-Other Water Sample Type Key: 23 reservative Key: 25 Matrix Key: 24 0-0il S-Solid SL-Sludge W-Wipe ANALYSIS REQUESTED 22 PRESERVATIVE 21 HNO3 I'VE HNO3 Z H Z py Authorization to subcontract analysis will be assumed acceptable customer unless stated otherwise. 19 18 Sample Received Date: 10 Sample Received By: 11

H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide P-Phosphoric Acid ST-Sodium Thiosulfate

Radium 226 +228 Sty 60204 6PA 700

IL+ ALOGA SLOTOM No. of Containers

Sample Type

17

Sample Description

Matrix

30

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0 0 O

3 35

35 35 35

> 5-19-16 17:37 92:11 91-61-5

> > 3 HGWR-4

100 1 46WA-3

1035336 HGWA-1

Hammond MP Ham Mond AP

Hammond AP

5-19-16 09:30

Time

Date

16

Collection

15

Sample Number

LAB USE ONLY 14 LAB ID

Special Instructions: 7 Hammond APCCR GW

Project Location: 57 Jant Hammond

Account Number: 6

Contact: 4 Joja Abjaham

U-Unpreserved 0-Other (Specify)__

LAB USE ONLY 26

Comments

10,3533001

9

LAB USE ONLY: Sample Receipt Information 30

WICCOPEL-1R-4P) with ice, coole in good lendition, sal, AHL

5/20/16 @8:15

Date/Time

Date/Time

AM SIZOME

Date/Time 5/19/16 1900

FOR CHAIN OF CUSTODY USE ONLY 27

FOR CHAI

Relinquished by: 29

Received by:

347156B

WHITE, CANARY & PINK — Laboratory

GOLDENROD—Originator

(See Back For Instructions)

Sample Shipment Date.8 Sample Received Date.9 Sample Received Date.9 Sample Received Date.9 Sample Beceived Date.9 Sample Beceived Date.9 Sample Becontract analyses will be assumed acceptable by customer unless stated otherwise. Authorized Description 16 Py Containers And AP AU A AU A CAU 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Sample Sh Sample Re Sample Descr Sample Descr Sample Descr SAMMOND A	Sample Sh Sample Re Sample Descr Time Sample Descr Time AMMOND A	Sample Sh Sample Re Sample Descr Time Sample Descr Time HAMMOND A
	1 T T T T T T T T T T T T T T T T T T T	10185 HA HA	Collection Schill Collection Collection

Georgia Power Environmental Laboratory 2480 Maner Road, Bin 39110 Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

CHAIN OF CUSTODY RECORD ANALYSIS REQUEST AND

	W. L. O.	WORK UI	Reviewe	
QV I	242	USE	ONLY	

Work Order No. 103533	Reviewed By Sept 5-33-16
Š	/ Re
LAB	ONE

of 12 Page

nd Time	Sampled By: 9 Tracy Wavagall (Tw)	Sample Type Key: 23 G-Grab C-Composite		r. 24	WW-waste water W-Wipe DW-Drinking Water L0-Liquid OW-Other Water	Preservative Key: 25	H-Hydrochloric Acid N-Nitric Acid S-Suffuric Acid	SH-Sodium Hydroxide P-Phosphoric Acid	ST-Sodium Thiosulfate I-Ice
X Standard Turnaround Time	# of Business Days (Must be cleared throu	PRESERVATIVE 21	1. 10. A. 1. 14 Do	AND SCE ANDS	ANALYSIS REQUESTED 22	4	00000000000000000000000000000000000000	करात करात करात करात करात करात करात करात	or was a house of the same of
Sample Shipment Date: 8 5-20 - 2016	Sampled By: 9 Tracy laborabel (Tw)	Signature	Sample Received Date: 10	Sample Received By: 11	Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.	18 19 20	22	ners	ype
Company: 1 Southern Company Services	Report To Soju Abacham Address: 241 Ralph M.Gill Blid SE BLORS	Afficiate of 30.328	Phone/Fax. 3 464-406-4229	Contact: 4 Dia Abraham	Project Location: 5 2 (ant Hemmand	Account.Number 6	Special Instructions: Hammond AP CCR GW		

					λbe				W SW	اود		I-Ice U-Unpreserved
LAB USE	Samulo Number	Collection	tion 16	Samule Description 17	r əlqı	xir	00 to	S/21/2007	1.p	72		0-Other (Specify)
LABID		Date	Time		Sam	16M			The Page	9		Comments
10353300	103533006 HGWA-5	91-61-5	10:24	5-19-16 10:27 Hammond AP GW	B	GW	3	_	_			
		,										
		101010	7	20				AD HEE	OMIN. Co.	Doorint Information	30	
		FOR CHAIN OF CUSTODY USE UNLY 27	USE UNLY	17			-	AD USE	UNLY: SAI	LAB USE UNLY: Sample neceipt information so	25 110	
Relinquished by: 28	3	See. 1 # 0519-4	Date/Time	Date/Time 5/19/2016 10:30 4.10	GPEL.	112.	1/dh	With	ice co	obering ood	of Com	16:30 HICCOPEL-1R-4P/Withice, coloring 000d Conlithany Scal
Received by: 29	29 AMACHAO	3	Date/Time	Date/Time S/20/16 @ 8:115 PHK2	1					5		
Relinquished by:	by:		Date/Time									
Received by:		AN 51	ANJ 5/28/16/Time									

Sample Receipt Checklist



Client:

Hammond

of Samples:

6

Workorder No.:

103533

Tracking No:

Carrier:

COURIER

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	4.1
COC is present	True	
COC is filled out in ink and is legible	True	Sample HGWA-3 and Dup-1 the project name is different from COC to sample container label. Samples were logged in based on conformation email from customer.
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
nformation on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:



2480 Maner Road Atlanta, Ga. 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

June 14, 2016

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

RE: Workorder: 103563 CCR - Hammond AP

Dear Joju Abraham:

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

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

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

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

L. Biddy

Ibbiddy@southernco.com

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

Respectfully submitted,

R. S. Dickerson rsdicker@southernco.com

QA/QC Specialist

Report ID: 103563 - 5038679 GPC Report Page 1 of 48

SAMPLE SUMMARY

Workorder: 103563 CCR - Hammond AP

Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
HGWC-11	N/A	Water	5/23/2016 12:10	5/24/2016 08:55
HGWC-12	N/A	Water	5/23/2016 13:51	5/24/2016 08:55
DUP-2	N/A	Water	5/23/2016 00:00	5/24/2016 08:55
HGWC-14	N/A	Water	5/23/2016 12:28	5/24/2016 08:55
HGWC-15	N/A	Water	5/23/2016 13:59	5/24/2016 08:55
HGWC-16	N/A	Water	5/23/2016 15:25	5/24/2016 08:55
FB-1	N/A	Water	5/23/2016 09:00	5/24/2016 08:55
FB-2	N/A	Water	5/23/2016 09:30	5/24/2016 08:55
FERB-1	N/A	Water	5/23/2016 16:30	5/24/2016 08:55
FERB-2	N/A	Water	5/23/2016 17:00	5/24/2016 08:55
HGWC-9	N/A	Water	5/23/2016 12:00	5/24/2016 08:55
HGWC-10	N/A	Water	5/23/2016 14:06	5/24/2016 08:55
HGWC-17	N/A	Water	5/23/2016 16:21	5/24/2016 08:55
HGWC-13	N/A	Water	5/23/2016 15:15	5/24/2016 08:55
	HGWC-11 HGWC-12 DUP-2 HGWC-14 HGWC-15 HGWC-16 FB-1 FB-2 FERB-1 FERB-2 HGWC-9 HGWC-10 HGWC-17	HGWC-11 N/A HGWC-12 N/A DUP-2 N/A HGWC-14 N/A HGWC-15 N/A HGWC-16 N/A FB-1 N/A FB-2 N/A FERB-1 N/A FERB-2 N/A HGWC-9 N/A HGWC-10 N/A HGWC-17 N/A	HGWC-11 N/A Water HGWC-12 N/A Water DUP-2 N/A Water HGWC-14 N/A Water HGWC-15 N/A Water HGWC-16 N/A Water FB-1 N/A Water FB-2 N/A Water FERB-1 N/A Water FERB-2 N/A Water HGWC-9 N/A Water HGWC-10 N/A Water HGWC-17 N/A Water	HGWC-11 N/A Water 5/23/2016 12:10 HGWC-12 N/A Water 5/23/2016 13:51 DUP-2 N/A Water 5/23/2016 00:00 HGWC-14 N/A Water 5/23/2016 12:28 HGWC-15 N/A Water 5/23/2016 13:59 HGWC-16 N/A Water 5/23/2016 15:25 FB-1 N/A Water 5/23/2016 09:00 FB-2 N/A Water 5/23/2016 09:30 FERB-1 N/A Water 5/23/2016 16:30 FERB-2 N/A Water 5/23/2016 17:00 HGWC-9 N/A Water 5/23/2016 12:00 HGWC-10 N/A Water 5/23/2016 14:06 HGWC-17 N/A Water 5/23/2016 16:21

Report ID: 103563 - 5038679 GPC Report Page 2 of 48

CERTIFICATE OF ANALYSIS

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:103563001Date Received:5/24/2016 08:55Sample ID:HGWC-11Date Collected:5/23/2016 12:10Sample DescriptionHammond AP GWMatrix:Water

Sample Description	Hammond AP GW		Ма	trix:	Water		
Location	Hammond AP	MDI	DI Davis and		A I I		01
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6010D				
INORGANICS		·	5/26/2016 10:40	KLW	6/7/2016 16:10	MRP	
Calcium	131 mg/L	1.00	5.00 5/26/2016 10:40	KLW	6/7/2016 16:10	MRP	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
TOTAL METALS			5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Analysis Desc: EPA 74	70A	Preparation N	Method: EPA 7470A				
		Analytical Me	thod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/26/2016 06:33	WCM	5/27/2016 10:46	WCM	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Boron	0.787 mg/L	0.0200	0.100 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Selenium	0.0106 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Molybdenum	0.0164 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Barium	0.0466 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Γhallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
_ead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 14:54	ELS	
Analysis Desc: EPA 30	0	Analytical Me	thod: EPA 300				
TOTAL NUTRIENTS					6/1/2016 07:29	LBB	
Sulfate	260 mg/L	7.50	25.0		6/1/2016 19:00	LBB	
Chloride	51.9 mg/L	1.00	6.25		6/1/2016 19:00	LBB	
Fluoride	0.2030J mg/L	0.0100	0.3000		6/1/2016 07:29	LBB	
Idolido	0.2000 Hig/L	0.0100	0.5000		5/1/2010 U1.23	בטט	
Analysis Desc: SM 254	10C	Analytical Me	thod: SM 2540C				
NET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 3 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

Atlanta, Ga. 30339 Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563001 Sample ID: HGWC-11

Sample Description Hammond AP GW

Location Hammond AP

C-11 Date Collected: 5/23/2016 12:10 mond AP GW Matrix: Water

Date Received:

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	564 mg/L	25	25		5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 4 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

 Lab ID:
 103563002
 Date Received:
 5/24/2016 08:55

 Sample ID:
 HGWC-12
 Date Collected:
 5/23/2016 13:51

 Sample Description
 Hammond AP GW
 Matrix:
 Water

Sample Description	Hammond AP GW			Matrix:	Water		
Location	Hammond AP						
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	010D	Preparation I	Method: EPA 3005A				
		Analytical Me	ethod: EPA 6010D				
INORGANICS		•	5/26/2016	10:40 KLW	6/7/2016 16:16	MRP	
Calcium	195 mg/L	2.00	10.0 5/26/2016		6/7/2016 16:16	MRP	
Analysis Desc: EPA 60)20B	Preparation I	Method: EPA 3005A				
		Analytical Me	ethod: EPA 6020B				
TOTAL METALS			5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Analysis Desc: EPA 74	170A	Preparation I	Method: EPA 7470A				
		Analytical Me	ethod: EPA 7470A				
Mercury	<0.000500 mg/L	•	0.000500 5/26/2016	06:33 WCM	5/27/2016 10:51	WCM	
Analysis Desc: EPA 60)20B	Preparation I	Method: EPA 3005A				
		Analytical Me	ethod: EPA 6020B				
Lithium	0.0107J mg/L	0.0100	0.0500 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Boron	2.20 mg/L	0.100	0.500 5/26/2016	10:15 KLW	5/27/2016 17:48	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Arsenic	0.00460J mg/L	0.00100	0.00500 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Molybdenum	0.0413J mg/L	0.0100	0.0500 5/26/2016	10:15 KLW	5/27/2016 17:48	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Barium	0.133 mg/L	0.0100	0.0500 5/26/2016	10:15 KLW	5/27/2016 17:48	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016	10:15 KLW	5/27/2016 14:59	ELS	
Analysis Desc: EPA 30	00	Analytical Me	ethod: EPA 300				
TOTAL NUTRIENTS					6/1/2016 08:07	LBB	
Sulfate	288 mg/L	7.50	25.0		6/1/2016 19:39	LBB	
Chloride	160 mg/L	4.00	25.0		6/2/2016 11:50	LBB	
Fluoride	0.2120J mg/L	0.0100	0.3000		6/1/2016 08:07	LBB	
Analysis Desc: SM 254	40C	Analytical Me	ethod: SM 2540C				
WET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 5 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

5/23/2016 13:51

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563002 Sample ID: HGWC-12

Sample Description

Location **Hammond AP**

Hammond AP GW Matrix: Water

Date Received:

Date Collected:

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	1060 mg/L	25	25		5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 6 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

 Lab ID:
 103563003
 Date Received:
 5/24/2016 08:55

 Sample ID:
 DUP-2
 Date Collected:
 5/23/2016 00:00

Normal	oampie ib.							
Parameters Results Units MDL RL Prepared By Analyzed By Qual	Sample Description	Hammond AP GW		Ma	atrix:	Water		
Analysis Desc: EPA 6010D Preparation Method: EPA 3005A Analytical Method: EPA 6010D South Space Sepa 6010D Preparation Method: EPA 6010D South Space Sepa 6010D Preparation Method: EPA 6010D South Space Sepa 6010D Preparation Method: EPA 3005A Analytical Method: EPA 3005A Analytical Method: EPA 6020B TOTAL METALS Space S	Location	Hammond AP						
Analytical Method: EPA 6010D INORGANICS Calcium 130 mg/L 1.00 5.05 5/26/2016 10:40 KLW 6/7/2016 16:22 MRP Analysis Desc: EPA 6020B Preparation Method: EPA 3005A Analytical Method: EPA 6020B TOTAL METALS 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Analysis Desc: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 7470A Analytical Method: EPA 7470A Analytical Method: EPA 7470A Analytical Method: EPA 7470A Mercury <0.000500 mg/L 0.000250 0.000500 5/26/2016 00:33 WCM 5/27/2016 10:54 WCM Analytical Method: EPA 6020B Preparation Method: EPA 8020B Lithium <0.00500 mg/L 0.000050 0.00500 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Beryllium <0.00300 mg/L 0.000000 0.00300 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Beron 0.845 mg/L 0.00000 0.0000 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Chromium <0.00100 mg/L 0.00000 0.0010 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Chromium <0.00100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Arsenic <0.00500 mg/L 0.00100 0.00500 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Arsenic <0.00500 mg/L 0.00100 0.00500 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Selenium 0.0101 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Selenium 0.0101 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Cadmium <0.0168 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Cadmium <0.00100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Antimony <0.00100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Analytical Method: EPA 300 Analyt	Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
NORGANICS 130 mg/L	Analysis Desc: EPA 60	010D	Preparation M	lethod: EPA 3005A				
Analysis Desc: EPA 6020B			Analytical Me	thod: EPA 6010D				
Calcium 130 mg/L 1.00 5.00 5/26/2016 10:40 KLW 6/7/2016 16:22 MRP Analysis Desc: EPA 6020B Preparation Method: EPA 6020B TOTAL METALS 5/26/2016 10:15 KLW 5/27/2016 15:36 ELS Analysis Desc: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 7470A Analysis Desc: EPA 6020B Preparation Method: EPA 7470A Analysis Desc: EPA 6020B Preparation Method: EPA 7470A Analysis Desc: EPA 6020B Preparation Method: EPA 3005A Analysis Desc: EPA 6020B Preparation Method: EPA 3005A Analysis Desc: EPA 6020B Preparation Method: EPA 3005A Analysis Desc: EPA 6020B Lithium								

Report ID: 103563 - 5038679 GPC Report Page 7 of 48

CERTIFICATE OF ANALYSIS

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563003 Sample ID: DUP-2

Sample Description Hammond AP GW

Location Hammond AP

Date Received: 5/24/2016 08:55

Date Collected: 5/23/2016 00:00

Matrix: Water

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	553 mg/L	25	25		5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 8 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:103563004Date Received:5/24/2016 08:55Sample ID:HGWC-14Date Collected:5/23/2016 12:28Sample DescriptionHammond AP GWMatrix:Water

Sample Description	Hammond AP	GW			Matr	ix:	Water		
Location	Hammond AP								
Parameters	Results I	Units	MDL	RL Pi	repared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D		Preparation M	lethod: EPA 3	3005A				
			Analytical Met	hod: EPA 60	10D				
INORGANICS			•	5/2	26/2016 10:40	KLW	6/7/2016 17:10	MRP	
Calcium	664 n	mg/L	5.00		26/2016 10:40	KLW	6/7/2016 17:10	MRP	
Analysis Desc: EPA 60	20B		Preparation M	lethod: EPA 3	3005A				
			Analytical Met	hod: EPA 60	20B				
TOTAL METALS			·	5/2	26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Analysis Desc: EPA 74	70A		Preparation M	lethod: EPA 7	7470A				
			Analytical Met	hod: EPA 74	70A				
Mercury	<0.000500 n	ng/L	•		26/2016 06:33	WCM	5/27/2016 10:56	WCM	
•									
Analysis Desc: EPA 60	200		Preparation M						
			Analytical Met						
Lithium	<0.0500 n		0.0100		26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Beryllium	<0.00300 n		0.000600		26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Boron	15.4 n		0.500		26/2016 10:15	KLW	5/27/2016 18:06	ELS	
Chromium	<0.0100 n	ng/L	0.00200	0.0100 5/2	26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Cobalt	<0.250 n	0	0.0500		26/2016 10:15	KLW	5/27/2016 18:06	ELS	
Arsenic	0.00268J n	ng/L	0.00100	0.00500 5/2	26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Selenium	0.0170 n	ng/L	0.00200	0.0100 5/2	26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Molybdenum	<0.0100 n	ng/L	0.00200	0.0100 5/2	26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Cadmium	0.000139J n	ng/L	0.000100	0.00100 5/2	26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Antimony	<0.00300 n	ng/L	0.000600	0.00300 5/2	26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Barium	<0.250 n	-	0.0500	0.250 5/2	26/2016 10:15	KLW	5/27/2016 18:06	ELS	
Thallium	0.000306J n	Ū	0.000200	0.00100 5/2	26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Lead	0.00182J n	0	0.00100		26/2016 10:15	KLW	5/27/2016 15:41	ELS	
Analysis Desc: EPA 30	0		Analytical Met	hod: EPA 30	0				
TOTAL NUTRIENTS							6/6/2016 21:26	LBB	
Sulfate	1070 n	ng/L	30.0	100			6/8/2016 18:23	LBB	
Chloride	659 n	-	8.00	50.0			6/8/2016 18:53	LBB	
Fluoride	<0.3000 n		0.0100	0.3000			6/6/2016 21:26	LBB	
Analysis Desc: SM 254		-	Analytical Met	hod: SM 254	10C				
WET CHEMISTRY			,				5/25/2016 17:33	KLW	
VVLICHEIVIIOIKI							3/23/2010 17:33	I/L//	

Report ID: 103563 - 5038679 GPC Report Page 9 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563004 Sample ID: HGWC-14

Sample Description Hammond AP GW

Location Hammond AP

WC-14 Date Collected: 5/23/2016 12:28 mmond AP GW Matrix: Water

Date Received:

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	4130 mg/L	25	25		5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 10 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:103563005Date Received:5/24/2016 08:55Sample ID:HGWC-15Date Collected:5/23/2016 13:59Sample DescriptionHammond AP GWMatrix:Water

Sample Description	Hammond AP GW		Ma	trix:	Water		
Location	Hammond AP	MDI	DI Danasani		A I I		01
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D	Preparation I	Method: EPA 3005A				
		Analytical Me	ethod: EPA 6010D				
INORGANICS		·	5/26/2016 10:40	KLW	6/7/2016 17:16	MRP	
Calcium	184 mg/L	2.00	10.0 5/26/2016 10:40	KLW	6/7/2016 17:16	MRP	
Analysis Desc: EPA 60	20B	Preparation I	Method: EPA 3005A				
		Analytical Me	ethod: EPA 6020B				
TOTAL METALS			5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Analysis Desc: EPA 74	70A	Preparation I	Method: EPA 7470A				
		Analytical Me	ethod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/26/2016 06:33	WCM	5/27/2016 10:59	WCM	
Analysis Desc: EPA 60	20B	Preparation I	Method: EPA 3005A				
		Analytical Me	ethod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Boron	2.02 mg/L	0.100	0.500 5/26/2016 10:15	KLW	5/27/2016 18:11	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Cobalt	0.0419J mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 18:11	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Cadmium	0.00271J mg/L	0.000500	0.00500 5/26/2016 10:15	KLW	5/27/2016 18:11	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Barium	0.0315J mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 18:11	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
_ead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 15:46	ELS	
Analysis Desc: EPA 30	0	Analytical Me	ethod: EPA 300				
TOTAL NUTRIENTS					6/6/2016 21:56	LBB	
Sulfate	424 mg/L	30.0	100		6/8/2016 19:23	LBB	
Chloride	209 mg/L	4.00	25.0		6/8/2016 19:23	LBB	
Fluoride	<0.3000 mg/L	0.0100	0.3000		6/6/2016 21:56	LBB	
idolido	10.0000 Ilig/L	0.0100	0.0000		5,0,2010 21.00		
Analysis Desc: SM 254	40C	Analytical Me	ethod: SM 2540C				
WET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 11 of 48

CERTIFICATE OF ANALYSIS

KLW

5/24/2016 08:55

5/23/2016 13:59

Water

5/25/2016 17:33

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Date Collected:

Matrix:

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563005 Sample ID: **HGWC-15**

Sample Description Hammond AP GW

1270 mg/L

TDS

Location **Hammond AP** Results Units **Parameters** MDL RL Prepared Ву Qual Analyzed Ву

25

25

Report ID: 103563 - 5038679 GPC Report Page 12 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:103563006Date Received:5/24/2016 08:55Sample ID:HGWC-16Date Collected:5/23/2016 15:25Sample DescriptionHammond AP GWMatrix:Water

Sample Description	Hammond AP GW		Mat	trix:	Water		
Location	Hammond AP	MDI	DI Danasani		A I I	D	01
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6010D				
INORGANICS		•	5/26/2016 10:40	KLW	6/7/2016 17:23	MRP	
Calcium	146 mg/L	1.00	5.00 5/26/2016 10:40	KLW	6/7/2016 17:23	MRP	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
TOTAL METALS			5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Analysis Desc: EPA 74	70A	Preparation N	Method: EPA 7470A				
		Analytical Me	thod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/26/2016 06:33	WCM	5/27/2016 11:02	WCM	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
·		·	thod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Boron	1.36 mg/L	0.0400	0.200 5/26/2016 10:15	KLW	5/27/2016 18:16	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Barium	0.0841 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Γhallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
₋ead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 15:50	ELS	
Analysis Desc: EPA 30	0	Analytical Me	thod: EPA 300				
TOTAL NUTRIENTS					6/6/2016 22:26	LBB	
Sulfate	203 mg/L	3.00	10.0		6/8/2016 19:53	LBB	
Chloride	25.8 mg/L	0.4000	2.50		6/8/2016 19:53	LBB	
Fluoride	0.0380J mg/L	0.0100	0.3000		6/6/2016 22:26	LBB	
1401140	0.00000 111g/L	0.0100	0.0000		5, 5, 20 TO 22.20		
Analysis Desc: SM 254	10C	Analytical Me	thod: SM 2540C				
WET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 13 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

5/23/2016 15:25

Water

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Date Collected:

Matrix:

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563006 Sample ID: HGWC-16

Sample Description Hammond AP GW

Location Hammond AP

Parameters Results Units MDL RL Prepared By Analyzed By Qual
TDS 570 mg/L 25 25 5/25/2016 17:33 KLW

Report ID: 103563 - 5038679 GPC Report Page 14 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Date Received: 5/24/2016 08:55 Lab ID: 103563007 Sample ID: FB-1 **Date Collected:** 5/23/2016 09:00 Sample Description Hammond AP GW-Field Blank Matrix: Water

Sample Description Location	Hammond AP GW-Fie Hammond AP	Id Blank	Blank Matrix:				
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 6	010D	Preparation M	lethod: EPA 3005A				
		Analytical Met	thod: EPA 6010D				
INORGANICS			5/26/2016 10:40	KLW	6/7/2016 17:29	MRP	
Calcium	<0.500 mg/L	0.100	0.500 5/26/2016 10:40	KLW	6/7/2016 17:29	MRP	
Analysis Desc: EPA 6	020B	Preparation M	lethod: EPA 3005A				
		Analytical Met	thod: EPA 6020B				
TOTAL METALS			5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Analysis Desc: EPA 7	470A	Preparation M	lethod: EPA 7470A				
, 5.5 2 555. 2.777		•	thod: EPA 7470A				
Mercury	<0.000500 mg/L	•	0.000500 5/26/2016 06:33	WCM	5/27/2016 11:05	WCM	
•				VVCIVI	5/21/2010 11.05	VVCIVI	
Analysis Desc: EPA 6	020B	Preparation M	lethod: EPA 3005A				
		Analytical Met	thod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Boron	<0.100 mg/L	0.0200	0.100 5/26/2016 10:15	KLW	5/27/2016 19:03	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Barium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 15:55	ELS	
Analysis Desc: EPA 3	00	Analytical Met	thod: EPA 300				
TOTAL NUTRIENTS					6/6/2016 22:55	LBB	
Sulfate	<1.00 mg/L	0.3000	1.00		6/6/2016 22:55	LBB	
Chloride	<0.2500 mg/L	0.0400	0.2500		6/6/2016 22:55	LBB	
Fluoride	<0.3000 mg/L	0.0100	0.3000		6/6/2016 22:55	LBB	
					3, 3, 23 . 3 22.00		
Analysis Desc: SM 25	540C	Analytical Met	thod: SM 2540C				
WET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 15 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563007

Sample ID: FB-1 Date Collected: 5/23/2016 09:00

Sample Description Hammond AP GW-Field Blank Matrix: Water

Location Hammond AP

 Parameters
 Results Units
 MDL
 RL Prepared
 By
 Analyzed
 By
 Qual

 TDS
 <25 mg/L</td>
 25
 25
 5/25/2016 17:33
 KLW

Report ID: 103563 - 5038679 GPC Report Page 16 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

 Lab ID:
 103563008
 Date Received:
 5/24/2016 08:55

 Sample ID:
 FB-2
 Date Collected:
 5/23/2016 09:30

 Sample Received:
 Making
 Water

Sample Description	Hammond AP GW-Fiel	ld Blank	Mat	rix:	Water		
Location	Hammond AP						
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6010D				
INORGANICS			5/26/2016 10:40	KLW	6/7/2016 17:35	MRP	
Calcium	<0.500 mg/L	0.100	0.500 5/26/2016 10:40	KLW	6/7/2016 17:35	MRP	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
TOTAL METALS			5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Analysis Desc: EPA 74	70A	Preparation N	Method: EPA 7470A				
		Analytical Me	thod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/26/2016 06:33	WCM	5/27/2016 11:07	WCM	
Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Boron	<0.100 mg/L	0.0200	0.100 5/26/2016 10:15	KLW	5/27/2016 19:08	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Barium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 16:00	ELS	
Analysis Desc: EPA 30	00	Analytical Me	thod: EPA 300				
TOTAL NUTRIENTS					6/7/2016 00:25	LBB	
Sulfate	<1.00 mg/L	0.3000	1.00		6/7/2016 00:25	LBB	
Chloride	<0.2500 mg/L	0.0400	0.2500		6/7/2016 00:25	LBB	
Fluoride	<0.2000 mg/L	0.0400	0.3000		6/7/2016 00:25	LBB	
i iuoliu c	<0.5000 Hig/L	0.0100	0.3000		0/1/2010 00.20	רטט	
Analysis Desc: SM 254	40C	Analytical Me	thod: SM 2540C				
WET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 17 of 48

CERTIFICATE OF ANALYSIS

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

 Lab ID:
 103563008
 Date Received:
 5/24/2016 08:55

 Sample ID:
 FB-2
 Date Collected:
 5/23/2016 09:30

Sample Description Hammond AP GW-Field Blank Matrix: Water

Location Hammond AP

 Parameters
 Results Units
 MDL
 RL Prepared
 By
 Analyzed
 By
 Qual

 TDS
 <25 mg/L</td>
 25
 25
 5/25/2016 17:33
 KLW

Report ID: 103563 - 5038679 GPC Report Page 18 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Date Received: 5/24/2016 08:55 Lab ID: 103563009 Sample ID: FERB-1 **Date Collected:** 5/23/2016 16:30 Sample Description Hammond AP GW-Equip Rinse Matrix Water

Analysis Desc: EPA 6010D Preparation Method: EPA 3005A Analysical Method: EPA 6010D ORGANICS Analysical Method: EPA 6010D ORGANICS Alcium <0.500 mg/L 0.100 0.500 5/26/2016 10:40 KLW 6/7/2016 17:41 MRP Analysis Desc: EPA 6020B OTAL METALS OTAL METAL	Sample Description	Hammond AP GW-Equ	uip Rinse	Ma	atrix:	Water		
Preparation Method: EPA 3005A	Location	Hammond AP						
Analytical Method: EPA 6010D ORGANICS 0.100	Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Size	Analysis Desc: EPA 60	10D	Preparation N	Method: EPA 3005A				
Action			Analytical Me	thod: EPA 6010D				
Preparation Method: EPA 3005A	INORGANICS			5/26/2016 10:40	KLW	6/7/2016 17:41	MRP	
Analytical Method: EPA 6020B OTAL METALS Preparation Method: EPA 7470A Analytical Method: EPA 7470A Analytical Method: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 7470A Preparation Method: EPA 7470A Bercury OLO00500 mg/L OL000500 mg/L OL000500 mg/L OL0100 OL0500 5/26/2016 06:33 WCM 5/27/2016 11:10 WCM Analytical Method: EPA 6020B Preparation Method: EPA 6020B Analytical Method: EPA 300 Analytical Method: ESM 2540C	Calcium	<0.500 mg/L	0.100	0.500 5/26/2016 10:40	KLW	6/7/2016 17:41	MRP	
State Stat	Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
Preparation Method: EPA 7470A Analytical Method: EPA 7470A Analytical Method: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 3005A Preparation Method: EPA 3005A Analytical Method: EPA 6020B Preparation Method: EPA 6020B Analytical Method: EPA 6020B An			Analytical Me	thod: EPA 6020B				
Analytical Method: EPA 7470A ercury	TOTAL METALS			5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Preparation Method: EPA 3005A MCM 5/27/2016 11:10 MCM Malysis Desc: EPA 6020B Preparation Method: EPA 3005A Analytical Method: EPA 6020B	Analysis Desc: EPA 74	70A	Preparation N	Method: EPA 7470A				
Analytical Method: EPA 3005A Analytical Method: EPA 6020B Analytical Method: EPA 3005A Analytical Method: EPA 3005A Analytical Method: EPA 3005A Analytical Method: EPA 3005A Analytical Method: BA 3005A Analytical Method: EPA 3005A Analytical Method: EPA 3005A Analytical Method: SM 2540C			Analytical Me	thod: EPA 7470A				
Analytical Method: EPA 6020B thium	Mercury	<0.000500 mg/L	0.000250	0.000500 5/26/2016 06:33	WCM	5/27/2016 11:10	WCM	
thium	Analysis Desc: EPA 60	20B	Preparation N	Method: EPA 3005A				
Paryllium			Analytical Me	thod: EPA 6020B				
Originary Orig	Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Analytical Method: SM 2540C Anal	Beryllium	•	0.000600			5/27/2016 16:04		
Separation	Boron	o o				5/27/2016 19:12		
senic	Chromium	ŭ	0.00200			5/27/2016 16:04		
Selenium	Cobalt	0				5/27/2016 16:04		
Olybdenum	Arsenic	-	0.00100			5/27/2016 16:04		
Addrium	Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Analysis Desc: EPA 300 Analytical Method: EPA 300 Analytical Method: SM 2540C Analytical	Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Analysis Desc: EPA 300 Analytical Method: EPA 300 Analytical Method: SM 2540C Analytical	Cadmium	<0.00100 mg/L		0.00100 5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Analysis Desc: EPA 300 Analytical Method: SM 2540C Analytical Method: SM 2540	Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Analytical Method: EPA 300 Analytical Method: EPA 300 DTAL JTRIENTS ulfate	Barium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
Analytical Method: EPA 300 Analytical Method: EPA 300 OTAL JTRIENTS JIfate	Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
DTAL UTRIENTS 6/7/2016 00:55 LBB UTRIENTS 1.00 mg/L 0.3000 1.00 6/7/2016 00:55 LBB UTRIENTS 1.00 mg/L 0.0400 0.2500 6/7/2016 00:55 LBB UTRIENTS 1.00 mg/L 0.0400 0.2500 6/7/2016 00:55 LBB UTRIENTS 1.00 mg/L 0.0100 0.3000 0.7/2016 00:55 0.7/2016 0.7/2016 0.7/2016 0.7/2016 0.7/2016 0.7/2016 0.7/2016 0.7/2016 0.7/2016 0.7/2016 0.7/2016 0.7/2016 0.7/2016	Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 16:04	ELS	
UTRIENTS Ulfate	Analysis Desc: EPA 30	0	Analytical Me	thod: EPA 300				
ulfate <1.00 mg/L	TOTAL NUTRIENTS					6/7/2016 00:55	LBB	
nloride	Sulfate	<1.00 mg/L	0.3000	1.00		6/7/2016 00:55	LBB	
uoride <0.3000 mg/L 0.0100 0.3000 6/7/2016 00:55 LBB nalysis Desc: SM 2540C Analytical Method: SM 2540C	Chloride	•						
·	Fluoride							
FT CHEMISTRY 5/25/2016 17:33 KI W	Analysis Desc: SM 254	10C	Analytical Me	thod: SM 2540C				
J J	WET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 19 of 48

CERTIFICATE OF ANALYSIS

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

 Lab ID:
 103563009
 Date Received:
 5/24/2016 08:55

 Sample ID:
 FERB-1
 Date Collected:
 5/23/2016 16:30

Sample Description Hammond AP GW-Equip Rinse Matrix: Water

Location Hammond AP

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	<25 mg/L	25	25		5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 20 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:103563010Date Received:5/24/2016 08:55Sample ID:FERB-2Date Collected:5/23/2016 17:00Sample DescriptionHammond AP GW-Equip RinseMatrix:Water

Sample Description Location	Hammond AP GW-Equ	uip Rinse	Matr	ix:	Water		
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	010D	Preparation M	ethod: EPA 3005A				
		Analytical Met	nod: EPA 6010D				
INORGANICS			5/26/2016 10:40	KLW	6/7/2016 17:47	MRP	
Calcium	<0.500 mg/L	0.100	0.500 5/26/2016 10:40	KLW	6/7/2016 17:47	MRP	
Analysis Desc: EPA 60)20B	Preparation M	ethod: EPA 3005A				
		Analytical Met	nod: EPA 6020B				
TOTAL METALS		,	5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Analysis Desc: EPA 74	170A	Preparation M	ethod: EPA 7470A				
,			nod: EPA 7470A				
Mercury	<0.000500 mg/L	· ·	0.000500 5/31/2016 06:22	WCM	5/31/2016 11:52	WCM	
•				VVCIVI	5,51,2010 11.52	VVCIVI	
Analysis Desc: EPA 60)20B	Preparation M	ethod: EPA 3005A				
		Analytical Met	nod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Boron	<0.100 mg/L	0.0200	0.100 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15 0.00100 5/26/2016 10:15	KLW KLW	5/27/2016 16:37	ELS ELS	
Cadmium	<0.00100 mg/L <0.00300 mg/L	0.000100 0.000600	0.00300 5/26/2016 10:15	KLW	5/27/2016 16:37 5/27/2016 16:37	ELS	
Antimony Barium	<0.00300 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Thallium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10:15	KLW	5/27/2016 16:37	ELS	
				IXLVV	3/21/2010 10.37	LLO	
Analysis Desc: EPA 30	00	Analytical Met	nod: EPA 300				
TOTAL NUTRIENTS					6/7/2016 01:25	LBB	
Sulfate	<1.00 mg/L	0.3000	1.00		6/7/2016 01:25	LBB	
Chloride	0.0497J mg/L	0.0400	0.2500		6/7/2016 01:25	LBB	
Fluoride	<0.3000 mg/L	0.0100	0.3000		6/7/2016 01:25	LBB	
Analysis Desc: SM 254	40C	Analytical Metl	nod: SM 2540C				
WET CHEMISTRY					5/25/2016 17:33	KLW	
··································					3. 3.=3.3 11.30		

Report ID: 103563 - 5038679 GPC Report Page 21 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

5/23/2016 17:00

Water

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Date Collected:

Matrix:

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563010
Sample ID: FERB-2

Sample Description Hammond AP GW-Equip Rinse

Location Hammond AP

 Parameters
 Results Units
 MDL
 RL Prepared
 By
 Analyzed
 By
 Qual

 TDS
 <25 mg/L</td>
 25
 25
 5/25/2016 17:33
 KLW

Report ID: 103563 - 5038679 GPC Report Page 22 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

 Lab ID:
 103563011
 Date Received:
 5/24/2016 08:55

 Sample ID:
 HGWC-9
 Date Collected:
 5/23/2016 12:00

 Sample Description
 Hammond AP GW
 Matrix:
 Water

oampie ib.							
Sample Description	Hammond AP GW			Matrix:	Water		
Location	Hammond AP						
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	010D	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6010D				
INORGANICS			5/26/2016	10:40 KLW	6/7/2016 17:53	MRP	
Calcium	179 mg/L	2.00	10.0 5/26/2016		6/7/2016 17:53	MRP	
Analysis Desc: EPA 60)20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
TOTAL METALS			5/26/2016	10:15 KLW	5/27/2016 16:42	ELS	
Analysis Desc: EPA 74	70A	Preparation N	Method: EPA 7470A				
		Analytical Me	thod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/31/2016	06:22 WCM	5/31/2016 11:55	WCM	
Analysis Desc: EPA 60)20B	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016	10:15 KLW	5/27/2016 16:42	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016		5/27/2016 16:42	ELS	
Boron	1.76 mg/L	0.100	0.500 5/26/2016		5/27/2016 18:49	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016	10:15 KLW	5/27/2016 16:42	ELS	
Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/2016	10:15 KLW	5/27/2016 16:42	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016	10:15 KLW	5/27/2016 16:42	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016	10:15 KLW	5/27/2016 16:42	ELS	
Molybdenum	0.0187 mg/L	0.00200	0.0100 5/26/2016	10:15 KLW	5/27/2016 16:42	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016	10:15 KLW	5/27/2016 16:42	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016	10:15 KLW	5/27/2016 16:42	ELS	
Barium	0.117 mg/L	0.00200	0.0100 5/26/2016		5/27/2016 16:42	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016		5/27/2016 16:42	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016		5/27/2016 16:42	ELS	
Analysis Desc: EPA 30			thod: EPA 300				
TOTAL		•			6/7/2016 01:55	LBB	
NUTRIENTS							
Sulfate	207 mg/L	30.0	100		6/8/2016 20:23	LBB	
Chloride	152 mg/L	4.00	25.0		6/8/2016 20:23	LBB	
Fluoride	<0.3000 mg/L	0.0100	0.3000		6/7/2016 01:55	LBB	
Analysis Desc: SM 254	40C	Analytical Me	thod: SM 2540C				
WET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 23 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563011 Sample ID: HGWC-9

Sample Description Hammond AP GW

Location Hammond AP

Date Collected: 5/23/2016 12:00

Matrix: Water

Date Received:

Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
TDS	984 mg/L	25	25		5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 24 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

 Lab ID:
 103563012
 Date Received:
 5/24/2016 08:55

 Sample ID:
 HGWC-10
 Date Collected:
 5/23/2016 14:06

 Sample Description
 Hammond AP GW
 Matrix:
 Water

Parameters Results Units MDL RL Prepared By Analyzed By	Sample ID: HGWC-10				Date Collec		4.00
Parameters Results Units MDL RL Prepared By Analyzed By	Sample Description	Hammond AP GW			Matrix:	Water	
Analysis Desc: EPA 6010D	Location	Hammond AP					
Analytical Method: EPA 6010D S/26/2016 10:40 KLW 6/7/2016 17:59 MRP 61/2016 MRP 67/2016 MRP 67/2016	Parameters	Results Units	MDL	RL Prepare	d By	Analyzed	By Qual
NORGANICS 167 mg/L 2.00 10.0 5/26/2016 10:40 KLW 6/7/2016 17:59 MRP	Analysis Desc: EPA 60)10D	Preparation I	Method: EPA 3005A			
Calcium			Analytical Me	ethod: EPA 6010D			
Calcium 167 mg/L 2.00 10.0 5/26/2016 10:40 KLW 6/7/2016 17:59 MRP Analysis Desc: EPA 6020B Preparation Method: EPA 3005A Analytical Method: EPA 6020B TOTAL METALS Preparation Method: EPA 7470A Analysis Desc: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 7470A Analytical Method: EPA 7470A Mercury	INORGANICS		•	5/26/20	16 10:40 KLW	6/7/2016 17:59	MRP
Analytical Method: EPA 6020B TOTAL METALS Preparation Method: EPA 7470A Analytical Method: EPA 7470A Preparation Method: EPA 7470A Analytical Method: EPA 7470A Mercury < 0.000500 mg/L 0.000250 0.000500 5/31/2016 06:22 WCM 5/31/2016 11:58 WCM Analytical Method: EPA 3005A Analytical Method: EPA 6020B Preparation Method: EPA 6020B Lithium <0.0500 mg/L 0.00000 0.0500 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Beryllium <0.00300 mg/L 0.000600 0.00300 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Beron 0.720 mg/L 0.00000 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Chromium <0.0100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Chromium <0.0100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Selenium <0.00500 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Selenium <0.00500 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Selenium <0.00500 mg/L 0.00000 0.00500 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Selenium <0.00100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Selenium <0.00100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Selenium <0.00101 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Analytical Method: EPA 300 TOTAL NUTRIENTS Sulfate 175 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Analytical Method: EPA 300 TOTAL NUTRIENTS Sulfate 175 mg/L 0.00394J mg/L 0.00100 0.3000 6/7/2016 02:25 LBB Analytical Method: EPA 300 Analytical Method: EPA 300		167 mg/L	2.00	10.0 5/26/20			
Analysis Desc: EPA 7470A	Analysis Desc: EPA 60	120B	Preparation I	Method: EPA 3005A			
Analysis Desc: EPA 7470A			Analytical Me	ethod: EPA 6020B			
Analytical Method: EPA 7470A	TOTAL METALS		·	5/26/20	16 10:15 KLW	5/27/2016 16:47	ELS
Mercury	Analysis Desc: EPA 74	70A	Preparation I	Method: EPA 7470A			
Analysis Desc: EPA 6020B Preparation Method: EPA 3005A Analytical Method: EPA 6020B Lithium			Analytical Me	ethod: EPA 7470A			
Analytical Method: EPA 6020B Lithium	Mercury	<0.000500 mg/L	0.000250	0.000500 5/31/20	16 06:22 WCI	M 5/31/2016 11:58	WCM
Continum	Analysis Desc: EPA 60)20B	Preparation I	Method: EPA 3005A			
Beryllium			Analytical Me	ethod: EPA 6020B			
Boron 0.720 mg/L 0.0200 0.100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS	Lithium	· ·	0.0100	0.0500 5/26/20	16 10:15 KLW	5/27/2016 16:47	ELS
Chromium	Beryllium	<0.00300 mg/L	0.000600			5/27/2016 16:47	ELS
Cobalt <0.0100 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Arsenic <0.00500 mg/L	Boron		0.0200	0.100 5/26/20			
Arsenic	Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/20	16 10:15 KLW	5/27/2016 16:47	ELS
Selenium	Cobalt	<0.0100 mg/L	0.00200	0.0100 5/26/20	16 10:15 KLW	5/27/2016 16:47	ELS
Molybdenum	Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/20	16 10:15 KLW	5/27/2016 16:47	ELS
Cadmium 0.000115J mg/L 0.000100 0.00100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Antimony <0.00300 mg/L	Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/20	16 10:15 KLW	5/27/2016 16:47	ELS
Antimony	Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/20	l6 10:15 KLW	5/27/2016 16:47	ELS
Barium 0.0877 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Thallium <0.00100 mg/L 0.000200 0.00100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Lead 0.00500 mg/L 0.00100 0.00500 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Analysis Desc: EPA 300 Analytical Method: EPA 300 TOTAL NUTRIENTS Sulfate 175 mg/L 3.00 10.0 6/8/2016 20:53 LBB Chloride 56.1 mg/L 0.4000 2.50 6/8/2016 20:53 LBB Fluoride 0.0394J mg/L 0.0100 0.3000 6/7/2016 02:25 LBB Analysis Desc: SM 2540C Analytical Method: SM 2540C	Cadmium	0.000115J mg/L	0.000100	0.00100 5/26/20	l6 10:15 KLW	5/27/2016 16:47	ELS
Barium 0.0877 mg/L 0.00200 0.0100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Thallium <0.00100 mg/L 0.000200 0.00100 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Lead 0.00500 mg/L 0.00100 0.00500 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Analysis Desc: EPA 300 Analytical Method: EPA 300 TOTAL NUTRIENTS Sulfate 175 mg/L 3.00 10.0 6/8/2016 20:53 LBB Chloride 56.1 mg/L 0.4000 2.50 6/8/2016 20:53 LBB Fluoride 0.0394J mg/L 0.0100 0.3000 6/7/2016 02:25 LBB Analysis Desc: SM 2540C Analytical Method: SM 2540C	Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/20	I6 10:15 KLW	5/27/2016 16:47	ELS
Thallium	Barium	-	0.00200	0.0100 5/26/20	16 10:15 KLW	5/27/2016 16:47	ELS
Lead <0.00500 mg/L 0.00100 0.00500 5/26/2016 10:15 KLW 5/27/2016 16:47 ELS Analysis Desc: EPA 300 Analytical Method: EPA 300 TOTAL NUTRIENTS Sulfate 175 mg/L 3.00 10.0 6/8/2016 20:53 LBB Chloride 56.1 mg/L 0.4000 2.50 6/8/2016 20:53 LBB Fluoride 0.0394J mg/L 0.0100 0.3000 6/7/2016 02:25 LBB Analysis Desc: SM 2540C Analytical Method: SM 2540C		J					
TOTAL 6/7/2016 02:25 LBB NUTRIENTS Sulfate 175 mg/L 3.00 10.0 6/8/2016 20:53 LBB Chloride 56.1 mg/L 0.4000 2.50 6/8/2016 20:53 LBB Fluoride 0.0394J mg/L 0.0100 0.3000 6/7/2016 02:25 LBB Analysis Desc: SM 2540C Analytical Method: SM 2540C		•					
NUTRIENTS Sulfate 175 mg/L 3.00 10.0 6/8/2016 20:53 LBB Chloride 56.1 mg/L 0.4000 2.50 6/8/2016 20:53 LBB Fluoride 0.0394J mg/L 0.0100 0.3000 6/7/2016 02:25 LBB Analysis Desc: SM 2540C Analytical Method: SM 2540C	Analysis Desc: EPA 30	0	Analytical Me	ethod: EPA 300			
Sulfate 175 mg/L 3.00 10.0 6/8/2016 20:53 LBB Chloride 56.1 mg/L 0.4000 2.50 6/8/2016 20:53 LBB Fluoride 0.0394J mg/L 0.0100 0.3000 6/7/2016 02:25 LBB Analysis Desc: SM 2540C Analytical Method: SM 2540C						6/7/2016 02:25	LBB
Chloride 56.1 mg/L 0.4000 2.50 6/8/2016 20:53 LBB Fluoride 0.0394J mg/L 0.0100 0.3000 6/7/2016 02:25 LBB Analysis Desc: SM 2540C Analytical Method: SM 2540C		175 ma/l	3 00	10.0		6/8/2016 20-53	LBB
Fluoride 0.0394J mg/L 0.0100 0.3000 6/7/2016 02:25 LBB Analysis Desc: SM 2540C Analytical Method: SM 2540C							
Analysis Desc: SM 2540C Analytical Method: SM 2540C		_					
						0/1/2010 02.23	LDD
WET CHEMISTRY 5/25/2016 17:33 KLW	•	10C	Analytical Me	ethod: SM 2540C			
	WET CHEMISTRY					5/25/2016 17:33	KLW

Report ID: 103563 - 5038679 GPC Report Page 25 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

5/23/2016 14:06

Water

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Date Collected:

Matrix:

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563012 Sample ID: HGWC-10

Sample Description Hammond AP GW

Location Hammond AP

Parameters Results Units MDL RL Prepared By Analyzed By Qual
TDS 629 mg/L 25 25 5/25/2016 17:33 KLW

Report ID: 103563 - 5038679 GPC Report Page 26 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

Lab ID:103563013Date Received:5/24/2016 08:55Sample ID:HGWC-17Date Collected:5/23/2016 16:21Sample DescriptionHammond AP GWMatrix:Water

Sample Description	Hammond AP GW			Matrix:	Water		
Location ————————————————————————————————————	Hammond AP						
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D	Preparation N	Method: EPA 3005A				
		Analytical Me	thod: EPA 6010D				
INORGANICS		•	5/26/2016 10	:40 KLW	6/7/2016 18:05	MRP	
Calcium	225 mg/L	2.00	10.0 5/26/2016 10		6/7/2016 18:05	MRP	
Analysis Desc: EPA 60	20B	Preparation M	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
TOTAL METALS		·	5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Analysis Desc: EPA 74	70A	Preparation M	Method: EPA 7470A				
		Analytical Me	thod: EPA 7470A				
Mercury	<0.000500 mg/L	•	0.000500 5/31/2016 06	:22 WCM	5/31/2016 12:00	WCM	
•	<u> </u>						
Analysis Desc: EPA 60	20B	·	Method: EPA 3005A				
		Analytical Me	thod: EPA 6020B				
Lithium	<0.0500 mg/L	0.0100	0.0500 5/26/2016 10		5/27/2016 16:51	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10		5/27/2016 16:51	ELS	
Boron	5.70 mg/L	0.200	1.00 5/26/2016 10	:15 KLW	5/27/2016 18:58	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Cobalt	0.0167 mg/L	0.00200	0.0100 5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Arsenic	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Barium	0.0222J mg/L	0.0200	0.100 5/26/2016 10	:15 KLW	5/27/2016 18:58	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/2016 10	:15 KLW	5/27/2016 16:51	ELS	
Analysis Desc: EPA 30	0	Analytical Me	thod: EPA 300				
TOTAL NUTRIENTS					6/7/2016 04:54	LBB	
Sulfate	395 mg/L	30.0	100		6/8/2016 21:23	LBB	
Chloride	94.0 mg/L	4.00	25.0		6/8/2016 21:23	LBB	
Fluoride	<0.3000 mg/L	0.0100	0.3000		6/7/2016 04:54	LBB	
Analysis Desc: SM 254			thod: SM 2540C				
•	+00	Analytical Me	1100. SIVI 23400				
WET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 27 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

5/23/2016 16:21

Water

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Date Collected:

Matrix:

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563013 Sample ID: HGWC-17

Sample Description Hammond AP GW

Location Hammond AP

Parameters Results Units MDL RL Prepared By Analyzed By Qual
TDS 1010 mg/L 25 25 5/25/2016 17:33 KLW

Report ID: 103563 - 5038679 GPC Report Page 28 of 48

ANALYTICAL RESULTS

Workorder: 103563 CCR - Hammond AP

 Lab ID:
 103563014
 Date Received:
 5/24/2016 08:55

 Sample ID:
 HGWC-13
 Date Collected:
 5/23/2016 15:15

 Sample Description
 Hammond AP GW
 Matrix:
 Water

Sample Description Location	Hammond AP GW Hammond AP			Matrix:	Water		
Location	Hammond AP						
Location							
Parameters	Results Units	MDL	RL Prepared	d By	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D	Preparation	Method: EPA 3005A				
		Analytical Me	ethod: EPA 6010D				
INORGANICS		•	5/26/201	6 10:40 KLW	6/7/2016 18:35	MRP	
Calcium	133 mg/L	2.00	10.0 5/26/201		6/7/2016 18:35	MRP	
Analysis Desc: EPA 60	20B	Preparation I	Method: EPA 3005A				
		Analytical Me	ethod: EPA 6020B				
TOTAL METALS		•	5/26/201	6 10:15 KLW	5/27/2016 16:56	ELS	
Analysis Desc: EPA 74	70A	Preparation I	Method: EPA 7470A				
		Analytical Me	ethod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/31/201	6 06:22 WCM	5/31/2016 12:03	WCM	
Analysis Desc: EPA 60	20B	Preparation	Method: EPA 3005A				
		Analytical Me	ethod: EPA 6020B				
Lithium	0.0422J mg/L	0.0100	0.0500 5/26/201	6 10:15 KLW	5/27/2016 16:56	ELS	
Beryllium	<0.00300 mg/L	0.000600	0.00300 5/26/201		5/27/2016 16:56	ELS	
Boron	2.15 mg/L	0.100	0.500 5/26/201		5/27/2016 17:43	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/26/201		5/27/2016 16:56	ELS	
Cobalt	0.00361J mg/L	0.00200	0.0100 5/26/201	6 10:15 KLW	5/27/2016 16:56	ELS	
Arsenic	0.329 mg/L	0.00500	0.0250 5/26/201	6 10:15 KLW	5/27/2016 17:43	ELS	
Selenium	<0.0100 mg/L	0.00200	0.0100 5/26/201	6 10:15 KLW	5/27/2016 16:56	ELS	
Molybdenum	0.0270 mg/L	0.00200	0.0100 5/26/201	6 10:15 KLW	5/27/2016 16:56	ELS	
Cadmium	<0.00100 mg/L	0.000100	0.00100 5/26/201	6 10:15 KLW	5/27/2016 16:56	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/26/201	6 10:15 KLW	5/27/2016 16:56	ELS	
Barium	0.0779 mg/L	0.00200	0.0100 5/26/201	6 10:15 KLW	5/27/2016 16:56	ELS	
Thallium	0.000378J mg/L	0.000200	0.00100 5/26/201		5/27/2016 16:56	ELS	
Lead	<0.00500 mg/L	0.00100	0.00500 5/26/201		5/27/2016 16:56	ELS	
Analysis Desc: EPA 30	0	Analytical Me	ethod: EPA 300				
TOTAL NUTRIENTS					6/7/2016 06:24	LBB	
Sulfate	215 mg/L	15.0	50.0		6/8/2016 22:52	LBB	
Chloride	93.2 mg/L	2.00	12.5		6/8/2016 22:52	LBB	
Fluoride	0.2587J mg/L	0.0100	0.3000		6/7/2016 06:24	LBB	
i idolide	0.23073 Hig/L	0.0100	0.3000		0/1/2010 00.24	LDD	
Analysis Desc: SM 254	40C	Analytical Me	ethod: SM 2540C				
WET CHEMISTRY					5/25/2016 17:33	KLW	

Report ID: 103563 - 5038679 GPC Report Page 29 of 48

CERTIFICATE OF ANALYSIS

5/24/2016 08:55

5/23/2016 15:15

Water

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Date Collected:

Matrix:

Workorder: 103563 CCR - Hammond AP

Lab ID: 103563014 Sample ID: HGWC-13

Sample Description Hammond AP GW

Location Hammond AP

Parameters Results Units MDL RL Prepared By Analyzed By Qual
TDS 683 mg/L 25 25 5/25/2016 17:33 KLW

Report ID: 103563 - 5038679 GPC Report Page 30 of 48

Atlanta, Ga. 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS QUALIFIERS

Workorder: 103563 CCR - Hammond AP

PARAMETER QUALIFIERS

ND None detected at the laboratory Method Detection Limit

MDL Method Detection Limit

RL Reporting Limit

J The reported value is between the laboratory method detection limit and the laboratory reporting limit

Report ID: 103563 - 5038679 GPC Report Page 31 of 48

QUALITY CONTROL DATA

Workorder: 103563	CCR -	Hammond AP						
QC Batch:	IC/30)36		Analysis Method	l: E	EPA 300		
QC Batch Method:	EPA	300						
Associated Lab Sam	ples:	103518002 103520005	103518003 103563001	103520001 103563002	103	3520002	103520003	103520004
METHOD BLANK: 1	06378							
Parameter		Units	Blank Result	Reporting Limit Qual	ifiers			
Fluoride		mg/L	<0.3000	0.3000				
METHOD BLANK: 1	06634							
Parameter		Units	Blank Result	Reporting Limit Qual	ifiers			
Chloride		mg/L	<0.2500	0.2500				
Sulfate		mg/L	<1.00	1.00				
METHOD BLANK: 1	06670							
Parameter		Units	Blank Result	Reporting Limit Qual	ifiers			
Chloride		mg/L	<0.2500	0.2500				
Sulfate		mg/L	<1.00	1.00				
Fluoride		mg/L	<0.3000	0.3000				
LABORATORY CON	ITROL	SAMPLE: 1063	71					
Parameter		Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
Chloride		mg/L	11.3	11.7	104	90-110		
Fluoride		mg/L	6.83	6.90	101	90-110		
LABORATORY CON	ITROL	SAMPLE: 1063	79					
Danasatan		11.56	Spike	LCS	LCS	% Rec	0	
Parameter		Units	Conc.	Result	% Rec	Limits	Qualifiers	
Fluoride		mg/L	0.5	0.5350	107	90-110		

Report ID: 103563 - 5038679 GPC Report Page 32 of 48

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP LABORATORY CONTROL SAMPLE: 106635 Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chloride mg/L 0.5 0.5020 100 90-110 LABORATORY CONTROL SAMPLE: 106671 Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chloride 0.5 0.4990 99.8 90-110 mg/L Sulfate mg/L 5 5.01 100 90-110 Fluoride 0.5 0.5320 90-110 mg/L 106

MATRIX SPIKE & MATRIX	SPIKE DUPL	ICATE: 1066	30	1066	31	Origir	nal: 10353	32003				
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit		Max RPD	Qualifiers	
Sulfate	mg/L	1.31	10	11.5	11.4	102	101	90-110	0.99	10		

Report ID: 103563 - 5038679 GPC Report Page 33 of 48

QUALITY CONTROL DATA

Workorder: 10356	3 CCR -	Hammond AP					
QC Batch:	IC/30	037		Analysis Method:	EPA 300		
QC Batch Method	: EPA	300					
Associated Lab Sa	amples:	103563003	103563004	103563005	103563006	103563007	103563008
	·	103563009	103563010	103563011	103563012	103563013	103563014
METHOD BLANK	: 106386						
			Blank	Reporting			
Parameter		Units	Result	Limit Qualifiers	3		
Chloride		mg/L	<0.2500	0.2500			
Sulfate		mg/L	<1.00	1.00			
Fluoride		mg/L	<0.3000	0.3000			
METHOD BLANK	: 106396						
			Blank	Reporting			
Parameter		Units	Result	Limit Qualifiers	3		
Chloride		mg/L	<0.2500	0.2500			
Sulfate		mg/L	<1.00	1.00			
Fluoride		mg/L	<0.3000	0.3000			
METHOD BLANK	: 106754						
			Blank	Reporting			
Parameter		Units	Result	Limit Qualifiers	3		
Chloride		mg/L	<0.2500	0.2500			
Sulfate		mg/L	<1.00	1.00			
Fluoride		mg/L	<0.3000	0.3000			
LABORATORY CO	ONTROL	SAMPLE: 1063	37				
LABORATORY CO	ONTROL	SAMPLE: 1063					
	ONTROL		Spike		LCS % Re		
Parameter	ONTROL	Units		Result %	Rec Limi	ts Qualifiers	
Parameter Chloride	ONTROL	Units mg/L	Spike Conc.	Result % 0.4858	Rec Limi 97.2 90-11	ts Qualifiers	
Parameter Chloride Sulfate	ONTROL	Units mg/L mg/L	Spike Conc. 0.5 5	Result % 0.4858 5.01	Rec Limi 97.2 90-11 100 90-11	ts Qualifiers 0 0	
Parameter Chloride Sulfate	ONTROL	Units mg/L	Spike Conc.	Result % 0.4858	Rec Limi 97.2 90-11	ts Qualifiers 0 0	
Parameter Chloride Sulfate Fluoride		Units mg/L mg/L mg/L	Spike Conc. 0.5 5 0.5	Result % 0.4858 5.01	Rec Limi 97.2 90-11 100 90-11	ts Qualifiers 0 0	
LABORATORY CO		Units mg/L mg/L mg/L	Spike Conc. 0.5 5 0.5	Result % 0.4858 5.01 0.5287	Rec Limi 97.2 90-11 100 90-11	ts Qualifiers 0 0 0	

Report ID: 103563 - 5038679 GPC Report Page 34 of 48

Chloride

CERTIFICATE OF ANALYSIS

11.4

101

90-110

11.3

mg/L

QUALITY CONTROL DATA

LABORATORY CONTROL SAMPLE	: 106389									
Parameter Units		Spike Conc.	LCS Result	LC % Re		% Rec Limits (Qualifiers			
Fluoride mg/L		6.83	6.70	9	8	90-110				
LABORATORY CONTROL SAMPLE	: 106397									
Parameter Units		Spike Sonc.	LCS Result	LC: % Re		% Rec Limits (Qualifiers			
Chloride mg/L Sulfate mg/L Fluoride mg/L		0.5 5 0.5	0.4655 4.90 0.5194	93. 97. 10	9	90-110 90-110 90-110				
LABORATORY CONTROL SAMPLE	: 106755									
Parameter Units		Spike Conc.	LCS Result	LC: % Re		% Rec Limits (Qualifiers			
Chloride mg/L Sulfate mg/L Fluoride mg/L		0.5 5 0.5	0.4766 4.90 0.5231	95. 9 10	8	90-110 90-110 90-110				
LABORATORY CONTROL SAMPLE	: 106756									
Parameter Units		Spike Conc.	LCS Result	LC % Re		% Rec Limits (Qualifiers			
Sulfate mg/L		6.95	6.92	99.	6	90-110				
LABORATORY CONTROL SAMPLE	: 106757									
Parameter Units		Spike Sonc.	LCS Result	LC: % Re		% Rec Limits (Qualifiers			
Chloride mg/L		11.3	11.5	10	1	90-110				
MATRIX SPIKE & MATRIX SPIKE D	UPLICATE: 106	390	1063	91	Origi	nal: 1035	63007			
Parameter Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit		ax PD Qualifiers	
Chloride mg/L	0.0041	1	0.9645	0.9204	96	91.6	90-110	4.7	10	

Report ID: 103563 - 5038679 GPC Report Page 35 of 48

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

MATRIX SPIKE & MATE	RIX SPIKE DUPL	ICATE: 1063	392	1063	93	Origi	nal: 10356	63007			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.02	0.9657	102	96.6	90-110	5.4	10	
MATRIX SPIKE & MATE	RIX SPIKE DUPL	ICATE: 1063	394	1063	95	Origii	nal: 10356	63007			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	9.87	9.42	98.7	94.2	90-110	4.7	10	
MATRIX SPIKE & MATE	RIX SPIKE DUPL	ICATE: 1063	398	1063	99	Origii	nal: 10356	63013			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	94	100	194	195	99.7	101	90-110	1.3	10	
MATRIX SPIKE & MATE	RIX SPIKE DUPL	ICATE: 1064	100	1064	04	Origii	nal: 10356	63013			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0	1	1.06	1.05	106	105	90-110	0.95	10	
MATRIX SPIKE & MATE	RIX SPIKE DUPL	ICATE: 1064	105	1064	06	Origii	nal: 10356	63013			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	395	1000	1400	1400	100	101	90-110	1	10	

Report ID: 103563 - 5038679 GPC Report Page 36 of 48

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103563	CCR - I	Hammond AP						
QC Batch:	GRA\	//2878		Analysis Method:		SM 2540C		
QC Batch Method:	SM 2	540C						
Associated Lab Sar	mples:	103563001 103563007 103563013	103563002 103563008 103563014	103563003 103563009		103563004 103563010	103563005 103563011	103563006 103563012
METHOD BLANK:	106427							
Parameter		Units	Blank Result	Reporting Limit Qualif	iers			
WET CHEMISTRY TDS		mg/L	<25	25				
LABORATORY CO	NTROL	SAMPLE: 10643	30					
Parameter		Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
WET CHEMISTRY TDS		mg/L	241	240	99.6	90-110		
SAMPLE DUPLICA	TE: 106	6428		Original: 1035630	02			
Parameter		Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers	
WET CHEMISTRY TDS		mg/L	1060	1070	0.75	20		
SAMPLE DUPLICA	TE: 106	6429		Original: 1035670	02			
Parameter		Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers	
WET CHEMISTRY								

Report ID: 103563 - 5038679 GPC Report Page 37 of 48

QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

QC Batch:	DIGM/4329		Analysis Method:	EPA 60	10D	
QC Batch Method:	EPA 3005A					
Associated Lab Sam	ples: 103533001 103563002 103563008 103563014	103533002 103563003 103563009	103533004 103563004 103563010	10353300 10356300 10356301	103563006	103563001 103563007 103563013
METHOD BLANK: 1	06465					
Parameter	Units	Blank Result	Reporting Limit Qualif	iers		
INORGANICS Calcium	mg/L	<0.500	0.500			
LABORATORY CON	ITROL SAMPLE: 1064	466				
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers	
INORGANICS						
Calcium	mg/L	5	4.87	97.5	30-120	

Report ID: 103563 - 5038679 GPC Report Page 38 of 48

QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

QC Batch:	DIGM/	4330		Analysis Method:	FF	PA 6020B		
QC Batch Method:	EPA 30							
Associated Lab Sam		103533001 103563001 103563007 103563013	103533002 103563002 103563008 103563014	103533003 103563003 103563009	1035	533004 563004 563010	103533005 103563005 103563011	103533006 103563006 103563012
METHOD BLANK: 1	06469							
Parameter		Units	Blank Result	Reporting Limit Qualifie	rs			
TOTAL METALS								
Lithium Beryllium Boron Chromium Cobalt Arsenic Selenium Molybdenum Cadmium Antimony Barium Thallium Lead		mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	<0.0500 <0.00300 <0.100 <0.0100 <0.0100 <0.00500 <0.0100 <0.00100 <0.00100 <0.00300 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100 <0.00100	0.0500 0.00300 0.100 0.0100 0.0100 0.00500 0.0100 0.00100 0.00300 0.0100 0.00100 0.00100 0.00100				
LABORATORY CON	ITROL S	AMPLE: 10647	70 Spike Conc.	LCS Result 9	LCS 6 Rec	% Rec	Qualifiers	
		Office	Coric.	iveonit 7	0 1/60	LiiiillS	Qualilieis	
TOTAL METALS						_		
Lithium		mg/L	0.2	0.203	102	80-120		
Beryllium		mg/L	0.1	0.0942	94.2	80-120		
Boron		mg/L	0.3	0.291	97.1	80-120		
Chromium		mg/L	0.1	0.0981	98.1	80-120		
0 - 1: - 1:		"	0.4	0.0000	000	00.400		

Report ID: 103563 - 5038679 GPC Report Page 39 of 48 mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

mg/L

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

0.1

Cobalt

Arsenic

Selenium

Cadmium

Antimony

Barium

Lead

Thallium

Molybdenum

CERTIFICATE OF ANALYSIS

0.0989

0.0943

0.0944

0.0939

0.0963

0.0960

0.0962

0.0867

0.0894

98.9

94.3

94.4

93.9

96.3

96.2

86.7

89.4

96

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

80-120

QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

MATRIX SPIKE & MATE	RIX SPIKE DUP	LICATE: 1064	71	1064	72	Origii	nal: 10356	63002			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.0107	0.2	0.212	0.213	101	101	75-125	0	20	
Beryllium	mg/L	5e-006	0.1	0.0988	0.0940	98.8	94	75-125	5	20	
Chromium	mg/L	0.00017	0.1	0.108	0.104	108	104	75-125	3.8	20	
Cobalt	mg/L	0.00178	0.1	0.107	0.104	105	103	75-125	1.9	20	
Arsenic	mg/L	0.0046	0.1	0.111	0.107	107	102	75-125	4.8	20	
Selenium	mg/L	0.00023	0.1	0.103	0.0962	103	95.9	75-125	7.1	20	
Cadmium	mg/L	1.1e-005	0.1	0.106	0.103	106	103	75-125	2.9	20	
Antimony	mg/L	0.00013	0.1	0.110	0.107	110	107	75-125	2.8	20	
Thallium	mg/L	8.8e-005	0.1	0.0956	0.0932	95.5	93.1	75-125	2.5	20	
Lead	mg/L	3.7e-005	0.1	0.0986	0.0953	98.6	95.3	75-125	3.4	20	
MATRIX SPIKE & MATE	RIX SPIKE DUP	LICATE: 1064	71	1064	72	Origii	nal: 1035	63002			
		Original	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Result	Result	% Rec	% Rec	Limit	RPD	RPD	Qualifiers
TOTAL METALS											
Boron	mg/L	2.2	0.3	2.54	2.51	113	104	75-125	8.3	20	
Molybdenum	mg/L	0.0413	0.1	0.149	0.146	108	105	75-125	2.8	20	
Barium	mg/L	0.133	0.1	0.239	0.235	106	102	75-125	3.8	20	

Report ID: 103563 - 5038679 GPC Report Page 40 of 48

QUALITY CONTROL DATA

Workorder: 103563 CCR	- Hammond AP										
	PR/1662 A 7470A			Analysis I	Method:	E	PA 7470A				
Associated Lab Samples:			63002 63008		63003 63009	103	3563004	10356300	05	103563006	
METHOD BLANK: 10648	3										
Parameter	Units		Blank Result	Reporting Limi) t Qualifiers	5					
TOTAL METALS Mercury	mg/L	<0.00	00500	0.000500)						
LABORATORY CONTRO	L SAMPLE: 10	06479									
Parameter	Units		oike onc.	LCS Result		LCS Rec	% Rec Limits	Qualifiers			
TOTAL METALS Mercury	mg/L	0.0	122	0.0123		101	80-120				
LABORATORY CONTRO	L SAMPLE: 10	06484									
Parameter	Units		oike onc.	LCS Result		LCS Rec	% Rec Limits	Qualifiers			
TOTAL METALS Mercury	mg/L	0.0	002	0.00197		98	80-120				
MATRIX SPIKE & MATRIX	X SPIKE DUPLIC	CATE: 1064	85	1064	186	(Original: 103	561002			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	% R	MS MSD		Max RPD RPD	Qualifiers	
TOTAL METALS Mercury	mg/L	0	0.002	0.00210	0.00207	1	05 104	80-120 (0.96 20		
SAMPLE DUPLICATE: 1	06482			Original: 1	03532002						
Parameter	Units	Orig Re	inal sult	DUP Result	ſ	RPD	Max RPD	Qualifiers			
TOTAL METALS Mercury	mg/L	<0.000	500	<0.000500		0	20				

Report ID: 103563 - 5038679 GPC Report Page 41 of 48

CERTIFICATE OF ANALYSIS

Atlanta, Ga. 30339 Phone: (404) 799-2100

Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

SAMPLE DUPLICATE:		Original: 10356	63001			
Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers	
TOTAL METALS				_		
Mercury	mg/L	< 0.000500	<0.000500	0	20	

Report ID: 103563 - 5038679 GPC Report Page 42 of 48

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

QC Batch: H	IGPR/1663		Analysis Metho	od: E	PA 7470A		
QC Batch Method: E	PA 7470A						
Associated Lab Sample	s: 103563010	103563011	103563012	2 103	563013	103563014	
METHOD BLANK: 1065	531						
Parameter	Units	Blank Result	Reporting Limit Qua	alifiers			
TOTAL METALS							
Mercury	mg/L	<0.000500	0.000500				
METHOD BLANK: 1065	537						
		Blank	Reporting				
Parameter	Units	Result	Limit Qua	alifiers			
TOTAL METALS		0.000	0.000===				
Mercury	mg/L	< 0.000500	0.000500				
LABORATORY CONTR	OL SAMPLE: 1065	532					
LABORATORY CONTR	OL SAMPLE: 1065		ICS	108	% Rec		
LABORATORY CONTR	OL SAMPLE: 1065 Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
		Spike Conc.		% Rec		Qualifiers	
Parameter TOTAL METALS		Spike				Qualifiers	
Parameter	Units mg/L	Spike Conc.	Result	% Rec	Limits	Qualifiers	
Parameter TOTAL METALS Mercury	Units mg/L	Spike Conc. 0.002	Result 0.00204	% Rec	80-120	Qualifiers	
Parameter TOTAL METALS Mercury	Units mg/L	Spike Conc.	Result	% Rec	80-120 % Rec	Qualifiers Qualifiers	
Parameter TOTAL METALS Mercury LABORATORY CONTR	Units mg/L OL SAMPLE: 1065	Spike Conc. 0.002	Result 0.00204 LCS	% Rec	80-120 % Rec		
Parameter TOTAL METALS Mercury LABORATORY CONTR Parameter TOTAL METALS	Units mg/L OL SAMPLE: 1065	Spike Conc. 0.002	Result 0.00204 LCS	% Rec	80-120 % Rec		
Parameter TOTAL METALS Mercury LABORATORY CONTR Parameter	Units mg/L OL SAMPLE: 1065 Units mg/L	Spike Conc. 0.002 Spike Conc. 0.0122	0.00204 LCS Result	% Rec 102 LCS % Rec	80-120 % Rec Limits		
Parameter TOTAL METALS Mercury LABORATORY CONTR Parameter TOTAL METALS Mercury	Units mg/L OL SAMPLE: 1065 Units mg/L	Spike Conc. 0.002 Spike Conc. 0.0122	Result 0.00204 LCS Result 0.0126	% Rec 102 LCS % Rec 103	% Rec Limits 80-120		
Parameter TOTAL METALS Mercury LABORATORY CONTR Parameter TOTAL METALS Mercury	Units mg/L OL SAMPLE: 1065 Units mg/L	Spike Conc. 0.002 Spike Conc. 0.0122	0.00204 LCS Result	% Rec 102 LCS % Rec	% Rec Limits 80-120 % Rec		
Parameter TOTAL METALS Mercury LABORATORY CONTR Parameter TOTAL METALS Mercury LABORATORY CONTR	Units mg/L OL SAMPLE: 1065 Units mg/L OL SAMPLE: 1065	Spike Conc. 0.002 Spike Conc. 0.0122 Spike Spike	Result 0.00204 LCS Result 0.0126	% Rec 102 LCS % Rec 103	% Rec Limits 80-120 % Rec	Qualifiers	

Report ID: 103563 - 5038679 GPC Report Page 43 of 48

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103563 CCR - Hammond AP

MATRIX SPIKE & MATE	RIX SPIKE DUP	LICATE: 106534		1065	535	Origi	nal: 1035	67001			
Parameter	Units	•	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS Mercury	mg/L	8.7e-006	0.002	0.00208	0.00201	104	100	80-120	3.9	20	
SAMPLE DUPLICATE:	106536		(Original: 1	03567002						
Parameter	Units	Origina Resul		DUP Result	F	RPD	Max RPD C	Qualifiers			
TOTAL METALS Mercury	mg/L	<0.000500) <	0.000500		0	20				

Report ID: 103563 - 5038679 GPC Report Page 44 of 48

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103563 CCR - Hammond AP

_ab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103563001	HGWC-11	EPA 300	IC/3036		
03563002	HGWC-12	EPA 300	IC/3036		
103563003	DUP-2	EPA 300	IC/3037		
03563004	HGWC-14	EPA 300	IC/3037		
03563005	HGWC-15	EPA 300	IC/3037		
03563006	HGWC-16	EPA 300	IC/3037		
03563007	FB-1	EPA 300	IC/3037		
03563008	FB-2	EPA 300	IC/3037		
03563009	FERB-1	EPA 300	IC/3037		
03563010	FERB-2	EPA 300	IC/3037		
03563011	HGWC-9	EPA 300	IC/3037		
03563012	HGWC-10	EPA 300	IC/3037		
03563013	HGWC-17	EPA 300	IC/3037		
03563014	HGWC-13	EPA 300	IC/3037		
103563001	HGWC-11	SM 2540C	GRAV/2878		
03563002	HGWC-12	SM 2540C	GRAV/2878		
03563003	DUP-2	SM 2540C	GRAV/2878		
03563004	HGWC-14	SM 2540C	GRAV/2878		
03563005	HGWC-15	SM 2540C	GRAV/2878		
03563006	HGWC-16	SM 2540C	GRAV/2878		
03563007	FB-1	SM 2540C	GRAV/2878		
03563008	FB-2	SM 2540C	GRAV/2878		
03563009	FERB-1	SM 2540C	GRAV/2878		
03563010	FERB-2	SM 2540C	GRAV/2878		
03563011	HGWC-9	SM 2540C	GRAV/2878		
03563012	HGWC-10	SM 2540C	GRAV/2878		
03563013	HGWC-17	SM 2540C	GRAV/2878		
03563014	HGWC-13	SM 2540C	GRAV/2878		
03563001	HGWC-11	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
03563002	HGWC-12	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
03563003	DUP-2	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025

Report ID: 103563 - 5038679 GPC Report Page 45 of 48

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103563 CCR - Hammond AP

103563004	Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103563005			QC Batch Method	QC Balcii	Analytical Method	Daton
103563006	103563004	HGWC-14	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563007	103563005	HGWC-15	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
FB-2	103563006	HGWC-16	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
Ferral	103563007	FB-1	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563010	103563008	FB-2	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563011	103563009	FERB-1	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
HGWC-10	103563010	FERB-2	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563013 HGWC-17 EPA 3005A DIGM/4329 EPA 6010D ICP/5025 103563014 HGWC-13 EPA 3005A DIGM/4329 EPA 6010D ICP/5025 103563001 HGWC-11 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563002 HGWC-12 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563003 DUP-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563004 HGWC-14 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563005 HGWC-15 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563006 HGWC-16 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563007 FB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563008 FB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563009 FERB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563010 FERB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563010 FERB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563011 HGWC-9 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563012 HGWC-10 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563013 HGWC-17 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563014 HGWC-11 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-12 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-12 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563003 DUP-2 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563005 HGWC-15 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563005 HGWC-15 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846	103563011	HGWC-9	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563014 HGWC-13 EPA 3005A DIGM/4329 EPA 6010D ICP/5025 103563001 HGWC-11 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563002 HGWC-12 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563003 DUP-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563004 HGWC-14 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563005 HGWC-15 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563006 HGWC-16 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563007 FB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563008 FB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563009 FERB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563010 FERB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563011 HGWC-9 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563012 HGWC-10 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563013 HGWC-17 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563014 HGWC-11 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563010 FERB-2 EPA 3470A HGPR/1662 EPA 7470A CVAA/1846 103563000 DIP-2 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563000 DIP-2 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563000 DIP-2 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563000 HGWC-15 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846	103563012	HGWC-10	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563001 HGWC-11 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563002 HGWC-12 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563003 DUP-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563004 HGWC-14 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563005 HGWC-15 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563006 HGWC-16 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563007 FB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563008 FB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563009 FERB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563010 FERB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563010 FERB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563011 HGWC-9 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563012 HGWC-10 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563013 HGWC-17 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563014 HGWC-11 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-11 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-11 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-11 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563003 DUP-2 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563004 HGWC-14 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563005 HGWC-15 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563005 HGWC-15 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846	103563013	HGWC-17	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103563002 HGWC-12 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563003 DUP-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563004 HGWC-14 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563005 HGWC-15 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563006 HGWC-16 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563007 FB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563008 FB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563009 FERB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563010 FERB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563011 HGWC-9 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563012 HGWC-10 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563013 HGWC-17 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563014 HGWC-13 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-13 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-11 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-12 EPA 7470A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-12 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563003 DUP-2 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563004 HGWC-14 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563005 HGWC-15 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846 103563006 HGWC-15 EPA 7470A HGPR/1662 EPA 7470A CVAA/1846	103563014	HGWC-13	EPA 3005A	DIGM/4329	EPA 6010D	ICP/5025
103663003 DUP-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563004 HGWC-14 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563005 HGWC-15 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563006 HGWC-16 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563007 FB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563008 FB-2 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563010 FERB-1 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563011 HGWC-9 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563012 HGWC-10 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563013 HGWC-17 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-13 EPA 3005A DIGM/4330 EPA 6020B ICPM/1079 103563001 HGWC-11 EPA 7470A <td>103563001</td> <td>HGWC-11</td> <td>EPA 3005A</td> <td>DIGM/4330</td> <td>EPA 6020B</td> <td>ICPM/1079</td>	103563001	HGWC-11	EPA 3005A	DIGM/4330	EPA 6020B	ICPM/1079
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Report ID: 103563 - 5038679 GPC Report Page 46 of 48

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103563 CCR - Hammond AP

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103563008	FB-2	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563009	FERB-1	EPA 7470A	HGPR/1662	EPA 7470A	CVAA/1846
103563010	FERB-2	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103563011	HGWC-9	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103563012	HGWC-10	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103563013	HGWC-17	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103563014	HGWC-13	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848

Report ID: 103563 - 5038679 GPC Report Page 47 of 48

CERTIFICATE OF ANALYSIS

LABORATORY CERTIFICATIONS

Workorder: 103563 CCR - Hammond AP

Certi	fication Program	Certification Number
NELA	AC	E57554

Report ID: 103563 - 5038679 GPC Report Page 48 of 48

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratory

2480 Maner Road, Bin 39110

Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

CHAIN OF CUSTODY RECORD ANALYSIS REQUEST AND

Reviewed By:

Work Order No.

103563

5-24-16 of ----12 Page

of

13 Standard Turnaround Time

Company: 1 Southern Consony Services	Sample Shipment Date: 8 5 - 2 4 - 2016	Standard Turnaround Time	nd Time
Report To Join Abisham	Sampled By Willy (Vive / Jose / My les Rocers (MR)	# of Business Days (Rush)	(Rush)
Address: 24 Ralph McGill Blud SE Blot	Address: 24 Ralph McGill Blod SE Bloves Thay Wardell (TWAT Brieg Jimklet)	(Must be cleared throug	(Must be cleared through Env. Lab. prior to shipment)
Atlanta, GA 3030 B	Signature	PRESERVATIVE 21	Sample Type Key: 23 G-Grab C-Composite
Dhone/Fav. 3 +3-1-526 - 42-20	Sample Received Date: 10	100 11/10-11/100	0-Other
Contact: 4 Pra Abraham		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Matrix Key: 24 0-0ii SW-Surface Water S-Solid GW-Ground Water
Project Location: 5 Plant Hammond	Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.	ANALYSIS REQUESTED 22	SL-Sludge WW-Waste Water W-Wipe DW-Drinking Water LQ-Liquid 0W-Other Water
Account Number: 6	18 19 20	8	Preservative Key: 25
Special Instructions: 7 Hammond APCCR GID	71.1	ON LAND	N-Nitric Acid S-Sulfuric Acid
	ners	100 P P P P P P P P P P P P P P P P P P	SH-Sodium Hydroxide P-Phosphoric Acid ST-Sodium Thiosulfate

Sample Number Sample Number Sample Number Sample Number Sample Number Sample Number Sample Number Sample Number Sample		əd/				1921	len	PPhosphoric Acid ST-Sodium Thiosulfate I-Ice
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18W2-11 5-23-16 12:10 18W2-12 5-23-16 13:51 19W2-14 5-23-16 12:28 19CW2-14 5-23-16 13:59 19CW2-15 5-23-16 15:25 19CW2-15 5-23-16 14:30 19CW2-16 5-23-16 14:30 19CW2-17 5-23-16 14:30		San				ID,		Comments
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Georgia Power Environmental Laboratory

2480 Maner Road, Bin 39110 Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

CHAIN OF CUSTODY RECORD ANALYSIS REQUEST AND

103563 2-44-16 ------Work Order No. Reviewed By:

of 8 12 Page

13 Standard Turnaround Time

(Must be cleared through Env. Lab. prior to shipment) # of Business Days (Rush)

C-Composite

G-Grab 0-Other

Sample Type Key: 23

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Company: 1 Southern Company Jervices Report To Jose Abraham Address: 241 Rulph McGill Blood SC BIDIBS Address: 241 Rulph McGill Blood SC BIDIBS						Special Instructions: 7 Hawmand AP CCR GW

Dhone/Fav. 5	Phono/Eav. 3 4 14 1 300 1 4 7 1			Sample Received Date: 18				1	1	141(1)		U-Uther	
To the state of th	Comment Total about			Sample Beceived By: 11				100				Matrix Key: 24 0-0il SW-Surface Water	Water
Project Locat	Project Location: 5 Plant Hammond	Lond		Authorization to subcontract analysis will be assumed acceptable by	e assumed	acceptable	e by	2	ANA	ANALYSIS REQUESTED	STED 22	S-Solid GW-Ground Water SL-Sludge WW-Waste Water W-Wipe DW-Drinking Water	Water Water
	u			customer uniess stated otherwise.							-	Preservative Key: 25	ater
Account Number: 9	Special Instructions: 7 Hawmand AP CCR GW	AP CCRG	3		18	19			704	4		H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid S-Soldium Hydroxide	
					λbe		ıənistn	T'ABL' I		yn		P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice	
LAB USE	Comple Number 15	Collection	16	Samula Description 17	T əlq					Zh ari		(V)	36
LABID	Sample Manines	Date	Time		Sam	tsM	.oN		01	Ga	\		
103563011	103562011 HGWC-9	7 91.52-5	38	5-23-16 1200 Hammand AP 600	9	5W	2	_	_	_		N. N	
11 12	12 HGWC-10	5-23-16 14	901	5-23-16 1406 Hammond AP GW	5	PW.	n	_					
13	13 HBWC-17	5.23-10 16	(2)	5-23-16 162) Hammond AP GW	6	GEN CEN	3	_	_	_		7	
h/ >	14 HGWC-13	5,23-16 15	5:15	5,23-16 15:15 Hammond AP GW	0	600	3	_	_			3	
	,												
Pag	1	FOR CHAIN OF CUSTODY USE ONLY 27	SE ONLY	27				LAB USE ONLY:		Sample Receipt Information 30	formation 30		
Gelinquished by: 28	by: 28 49	Dê	ate/Time	Date/Time 5/24/16 0853 300	CGRL	-1K-4	Phuis	- 1R-4P/withice,	cooler	ting cont	Gralitic	1, Seel PHL, H.	'may
Received by: 29	29	De	ate/Time	Date/Time 5-34 - 16 COS55									
Relinquished by:	by:	DE	Date/Time										

Received by:

Date/Time

Sample Receipt Checklist



Client:

Carrier:

Hammond

Workorder No.:

103563 HAND # of Samples:

14

Tracking No:

Question		Answer	Comment
Radioactivity wasn't checked or is <= background a survey meter	as measured by	True	
Custody seals were present on cooler		False	
Custody seals were present on sample		False	
The cooler or samples do not appear to have been tampered with	compromised or	True	
Samples were received on ice		True	
Cooler temperature is acceptable	6	True	
Cooler temperature is recorded		True	3
COC is present		True	
COC is filled out in ink and is legible		True	Missing matrix field on COC.
COC is filled out with pertinent information		True	
The field sampler's name is on the COC		True	
Sample containers have legible labels		True	
Information on the sample label agrees with inform	ation on the	True	
Samples are received within holding times		True	
Containers are not broken or leaking		True	
Sample collection date/times are present		True	Missing collection time on Dup-2 sample.
Appropriate sample containers are used		True	
Sample bottles are completely filled		True	
Sample preservation is checked		True	
Sample preservation is acceptable		True	
There is sufficient sample volume for all requested	analyses	True	
Containers requiring zero headspace have no head bubble is < 6mm (1/4 inch)	space or the	True	
Multiphasic samples are not present		True	
Samples do not require splitting or compositing		True	

Receiving Narrative:



Atlanta, Ga. 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

June 14, 2016

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

RE: Workorder: 103584 CCR - Hammond AP

Dear Joju Abraham:

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

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

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

All results relate only to the contents of the samples submitted. Samples will be disposed of after 30 days unless otherwise instructed. This report should only be reproduced in full with all associated records. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

L. Biddy

Ibbiddy@southernco.com

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

Respectfully submitted,

R. S. Dickerson rsdicker@southernco.com

QA/QC Specialist

Report ID: 103584 - 5039789 GPC Report Page 1 of 15

SAMPLE SUMMARY

Workorder: 103584 CCR - Hammond AP

Lab ID	Sample ID	Analysis Request Numbe	r Matrix	Date Collected	Date Received
103584001	HGWC-18	N/A	Water	5/24/2016 10:24	5/24/2016 15:35

Report ID: 103584 - 5039789 GPC Report Page 2 of 15

CERTIFICATE OF ANALYSIS

ANALYTICAL RESULTS

Workorder: 103584 CCR - Hammond AP

 Lab ID:
 103584001
 Date Received:
 5/24/2016 15:35

 Sample ID:
 HGWC-18
 Date Collected:
 5/24/2016 10:24

 Sample Received:
 Making
 Water

Sample Description	Hammond AP GW			Matrix:	Water		
Location	Hammond AP						
Parameters	Results Units	MDL	RL Prepared	Ву	Analyzed	Ву	Qual
Analysis Desc: EPA 60	10D	Preparation	Method: EPA 3005A				
		Analytical Mo	ethod: EPA 6010D				
INORGANICS		•	5/31/2016 10):30 KLW	6/7/2016 13:03	MRP	
Calcium	403 mg/L	2.00	10.0 5/31/2016 10		6/7/2016 13:03	MRP	
Analysis Desc: EPA 60	20B	Preparation	Method: EPA 3005A				
		Analytical Mo	ethod: EPA 6020B				
TOTAL METALS		•	5/31/2016 10	:45 KLW	6/4/2016 13:00	ELS	
Analysis Desc: EPA 74	70A	Preparation	Method: EPA 7470A				
		Analytical Me	ethod: EPA 7470A				
Mercury	<0.000500 mg/L	0.000250	0.000500 5/31/2016 06	::22 WCM	5/31/2016 12:52	WCM	
Analysis Desc: EPA 60	20B	Preparation	Method: EPA 3005A				
7 (1 aly 510 D 500). E1 7 (00	200	·					
1.50.5	0.04.40.1	•	ethod: EPA 6020B	1/11/1/	0/4/0040 40 00	F1 0	
Lithium	0.0142J mg/L	0.0100	0.0500 5/31/2016 10		6/4/2016 13:00	ELS	
Beryllium	0.00278J mg/L	0.000600	0.00300 5/31/2016 10		6/4/2016 13:00	ELS	
Boron	9.33 mg/L	0.400	2.00 5/31/2016 10		6/6/2016 12:05	ELS	
Chromium	<0.0100 mg/L	0.00200	0.0100 5/31/2016 10		6/4/2016 13:00	ELS	
Cobalt	0.170J mg/L	0.0400	0.200 5/31/2016 10		6/6/2016 12:05	ELS	
Arsenic	0.00294J mg/L	0.00100	0.00500 5/31/2016 10		6/4/2016 13:00	ELS	
Selenium	<0.200 mg/L	0.0400	0.200 5/31/2016 10		6/6/2016 12:05	ELS	
Molybdenum	<0.0100 mg/L	0.00200	0.0100 5/31/2016 10		6/4/2016 13:00	ELS	
Cadmium	<0.0200 mg/L	0.00200	0.0200 5/31/2016 10		6/6/2016 12:05	ELS	
Antimony	<0.00300 mg/L	0.000600	0.00300 5/31/2016 10		6/4/2016 13:00	ELS	
Barium	<0.200 mg/L	0.0400	0.200 5/31/2016 10		6/6/2016 12:05	ELS	
Thallium	<0.00100 mg/L	0.000200	0.00100 5/31/2016 10		6/4/2016 13:00	ELS	
Lead	0.00154J mg/L	0.00100	0.00500 5/31/2016 10):45 KLW	6/4/2016 13:00	ELS	
Analysis Desc: EPA 30	0	Analytical Mo	ethod: EPA 300				
TOTAL NUTRIENTS					6/7/2016 09:54	LBB	
Sulfate	834 mg/L	60.0	200		6/9/2016 00:52	LBB	
Chloride	280 mg/L	8.00	50.0		6/9/2016 00:52	LBB	
Fluoride	<0.3000 mg/L	0.0100	0.3000		6/7/2016 09:54	LBB	
Analysis Desc: SM 254	10C	Analytical Mo	ethod: SM 2540C				
WET CHEMISTRY					5/26/2016 17:40	KLW	
. L. OIILMIOTKI					5/20/2010 17.70	1 V T A	

Report ID: 103584 - 5039789 GPC Report Page 3 of 15

CERTIFICATE OF ANALYSIS

5/24/2016 15:35

5/24/2016 10:24

Water

Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS

Date Received:

Date Collected:

Matrix:

Workorder: 103584 CCR - Hammond AP

Lab ID: 103584001 Sample ID: HGWC-18

Sample Description Hammond AP GW

Location Hammond AP

Parameters Results Units MDL RL Prepared By Analyzed By Qual
TDS 1900 mg/L 25 25 5/26/2016 17:40 KLW

Report ID: 103584 - 5039789 GPC Report Page 4 of 15

CERTIFICATE OF ANALYSIS

Atlanta, Ga. 30339 Phone: (404) 799-2100 Fax: (404) 799-2141

ANALYTICAL RESULTS QUALIFIERS

Workorder: 103584 CCR - Hammond AP

PARAMETER QUALIFIERS

ND None detected at the laboratory Method Detection Limit

MDL Method Detection Limit

RL Reporting Limit

J The reported value is between the laboratory method detection limit and the laboratory reporting limit

Report ID: 103584 - 5039789 GPC Report Page 5 of 15

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103584	CCR - I	Hammond AP						
QC Batch:	IC/30	37		Analysis Method:	:	EPA 300		
QC Batch Method:	EPA:	300						
Associated Lab Sam	ples:	103563003 103563009 103584001	103563004 103563010	103563005 103563011		03563006 03563012	103563007 103563013	103563008 103563014
METHOD BLANK: 1	06396							
Parameter		Units	Blank Result	Reporting Limit Qualif	iers			
Fluoride		mg/L	<0.3000	0.3000				
METHOD BLANK: 1	06754							
Parameter		Units	Blank Result	Reporting Limit Qualif	iers			
Chloride		mg/L	<0.2500	0.2500				
Sulfate		mg/L	<1.00	1.00				
LABORATORY CON	TROL	SAMPLE: 10638	39					
Parameter		Units	Spike Conc.	LCS Result	LCS % Rec	% Red Limits	: Qualifiers	
Fluoride		mg/L	6.83	6.70	98	90-110	1	
LABORATORY CON	TROL	SAMPLE: 10639	97					
			Spike	LCS	LCS	% Red	;	
Parameter		Units	Conc.	Result	% Rec	Limits	Qualifiers	
Fluoride		mg/L	0.5	0.5194	104	90-110	١	
LABORATORY CON	ITROL	SAMPLE: 10675	55					
Parameter		Units	Spike Conc.	LCS Result	LCS % Rec	% Red Limits	: Qualifiers	
Chloride		mg/L	0.5	0.4766	95.3	90-110		
Sulfate		mg/L	5	4.90	98	90-110		
Fluoride		mg/L	0.5	0.5231	105	90-110		

Report ID: 103584 - 5039789 GPC Report Page 6 of 15

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103584 CCR - Hammond AP

LABORATORY CONTROL SAMPLE: 106757

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chloride mg/L 11.3 11.5 101 90-110

MATRIX SPIKE & MA	ATRIX SPIKE DUPLI	CATE: 1064	00	10640	04	Origin	nal: 10356	3013			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD Qualifiers	
Fluoride	mg/L	0	1	1.06	1.05	106	105	90-110	0.95	10	
MATRIX SPIKE & MA	ATRIX SPIKE DUPL	ICATE: 1064	05	10640	06	Origir	nal: 10356	3013			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD Qualifiers	

Report ID: 103584 - 5039789 GPC Report Page 7 of 15

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103584 CCR - Hammond AP QC Batch: GRAV/2879 Analysis Method: SM 2540C QC Batch Method: SM 2540C Associated Lab Samples: 103584001 METHOD BLANK: 106503 Blank Reporting Units Limit Qualifiers Parameter Result WET CHEMISTRY **TDS** mg/L <25 25 LABORATORY CONTROL SAMPLE: 106506 Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers WET CHEMISTRY **TDS** mg/L 241 236 97.9 90-110 SAMPLE DUPLICATE: 106504 Original: 103561002 Original DUP Max Result RPD **RPD Qualifiers** Units Parameter Result WET CHEMISTRY 20 TDS mg/L 32 29 9.8 SAMPLE DUPLICATE: 106505 Original: 103621008 Original DUP Max **RPD Qualifiers** Parameter Units Result Result **RPD** WET CHEMISTRY

Report ID: 103584 - 5039789 GPC Report Page 8 of 15 mg/L

196

TDS

CERTIFICATE OF ANALYSIS

183

6.9

20

QUALITY CONTROL DATA

Workorder: 103584 CC	CR - Hammond	AP									
	HGPR/1663 EPA 7470A			Analysis I	Method:	EPA	7470A				
Associated Lab Sample		010 103	563011	10356	63012	10356	3013	1035630	014	1	03584001
METHOD BLANK: 106	5537										
Parameter	Unit	s	Blank Result	Reportino Limi) t Qualifiers						
TOTAL METALS Mercury	mg/l	L <0.0	00500	0.000500)						
LABORATORY CONTR	ROL SAMPLE:	106533									
		S	pike	LCS	L	CS	% Rec				
Parameter	Units	С	onc.	Result	% F	Rec	Limits (Qualifiers			
TOTAL METALS Mercury	mg/L	0.0)122	0.0126		103	80-120				
LABORATORY CONT	ROL SAMPLE:	106538									
Parameter	Units		pike onc.	LCS Result	L % F	CS Rec	% Rec Limits 0	Qualifiers			
TOTAL METALS											
Mercury	mg/L	0	.002	0.00209	,	104	80-120				
MATRIX SPIKE & MAT	RIX SPIKE DU	PLICATE: 106	539	1065	540	Ori	ginal: 1035	67006			
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit		Max RPD C	Qualifiers
TOTAL METALS Mercury	mg/L	9.1e-006	0.002	0.00205	0.00213	102	106	80-120	3.8	20	
SAMPLE DUPLICATE:	106536			Original: 1	03567002						
Parameter	Units		ginal esult	DUP Result	R	PD	Max RPD (Qualifiers			
TOTAL METALS Mercury	mg/L	<0.000		<0.000500		0	20				

Report ID: 103584 - 5039789 GPC Report Page 9 of 15

CERTIFICATE OF ANALYSIS

Atlanta, Ga. 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103584 CCR - Hammond AP

SAMPLE DUPLICATE:	106541		Original: 10358	84001		
Parameter	Units	Original Result	DUP Result	RPD	Max RPD Qualifiers	
TOTAL METALS Mercury	mg/L	<0.000500	<0.000500	2.1	20	

Report ID: 103584 - 5039789 GPC Report Page 10 of 15

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103584 CCR - Hammond AP

QC Batch: DIGM/4336 Analysis Method: EPA 6010D

QC Batch Method: EPA 3005A
Associated Lab Samples: 103584001

METHOD BLANK: 106558

Blank Reporting

Parameter Units Result Limit Qualifiers

INORGANICS

Calcium mg/L <0.500 0.500

LABORATORY CONTROL SAMPLE: 106559

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106560

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers **INORGANICS** Calcium mg/L 5 5.03 101 80-120

MSD Original Spike MS MS MSD % Rec Max Limit RPD RPD Qualifiers Result Conc. Parameter Units Result Result % Rec % Rec **INORGANICS** 5 Calcium mg/L 13 18.0 17.6 101 92.3 75-125 9 20

106561

Original: 103621002

Report ID: 103584 - 5039789 GPC Report Page 11 of 15

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103584 CCR - Hammond AP

QC Batch: DIGM/4337 Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A
Associated Lab Samples: 103584001

METHOD BLANK: 106562

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

LABORATORY CONTROL SAMPLE: 106563

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits Qualifiers
TOTAL METALS					
Lithium	mg/L	0.2	0.199	99.4	80-120
Beryllium	mg/L	0.1	0.0964	96.4	80-120
Boron	mg/L	0.3	0.296	98.6	80-120
Chromium	mg/L	0.1	0.0971	97.1	80-120
Cobalt	mg/L	0.1	0.100	100	80-120
Arsenic	mg/L	0.1	0.0918	91.8	80-120
Selenium	mg/L	0.1	0.0897	89.7	80-120
Molybdenum	mg/L	0.1	0.0938	93.8	80-120
Cadmium	mg/L	0.1	0.0986	98.6	80-120
Antimony	mg/L	0.1	0.0937	93.7	80-120
Barium	mg/L	0.1	0.101	101	80-120
Thallium	mg/L	0.1	0.0967	96.7	80-120
Lead	mg/L	0.1	0.0951	95.1	80-120

Report ID: 103584 - 5039789 GPC Report Page 12 of 15

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA

Workorder: 103584 CCR - Hammond AP

MATRIX SPIKE & MATR	RIX SPIKE DUP	LICATE: 1065	564	1065	65	Origir	nal: 10356	67005		
Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD Qualifiers
TOTAL METALS										
Lithium	mg/L	0.021	0.2	0.214	0.215	96.4	97.1	75-125	0.72	20
Beryllium	mg/L	0.00038	0.1	0.0955	0.0951	95.1	94.7	75-125	0.42	20
Boron	mg/L	0.0035	0.3	0.295	0.297	97	97.9	75-125	0.92	20
Chromium	mg/L	0.00051	0.1	0.102	0.103	102	102	75-125	0	20
Cobalt	mg/L	3.1e-005	0.1	0.102	0.101	102	101	75-125	0.99	20
Arsenic	mg/L	6e-005	0.1	0.0992	0.100	99.1	100	75-125	0.9	20
Selenium	mg/L	0.00028	0.1	0.0994	0.0994	99.1	99.1	75-125	0	20
Molybdenum	mg/L	0.0085	0.1	0.110	0.112	102	103	75-125	0.98	20
Cadmium	mg/L	6.8e-005	0.1	0.101	0.101	100	101	75-125	1	20
Antimony	mg/L	0.00103	0.1	0.102	0.102	101	101	75-125	0	20
Barium	mg/L	0.00102	0.1	0.106	0.107	105	106	75-125	0.95	20
Thallium	mg/L	8e-006	0.1	0.0976	0.0978	97.6	97.8	75-125	0.2	20
Lead	mg/L	6.7e-005	0.1	0.0978	0.0984	97.7	98.3	75-125	0.61	20

Report ID: 103584 - 5039789 GPC Report Page 13 of 15

CERTIFICATE OF ANALYSIS

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103584 CCR - Hammond AP

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103584001	HGWC-18	EPA 300	IC/3037		
103584001	HGWC-18	SM 2540C	GRAV/2879		
103584001	HGWC-18	EPA 7470A	HGPR/1663	EPA 7470A	CVAA/1848
103584001	HGWC-18	EPA 3005A	DIGM/4336	EPA 6010D	ICP/5024
103584001	HGWC-18	EPA 3005A	DIGM/4337	EPA 6020B	ICPM/1080

Report ID: 103584 - 5039789 GPC Report Page 14 of 15

CERTIFICATE OF ANALYSIS

LABORATORY CERTIFICATIONS

Workorder: 103584 CCR - Hammond AP

Certification Program	Certification Number
NELAC	E57554

Report ID: 103584 - 5039789 GPC Report Page 15 of 15

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratory

2480 Maner Road, Bin 39110 Atlanta, Georgia 30339 Phone: (404) 799-2100 Company: 8-530-2100

CHAIN OF CUSTODY RECORD ANALYSIS REQUEST AND

ANS 5/25/16 Work Order No. 03584 Reviewed By:

12 Page

13 Standard Turnaround Time

Sample Shipment Date: 8 5-24-2016 Sampled By: 9 My les Pogers MR

Report To Joju Abraham Address: 22th Relph Mc Gill BLUSE BIDIES

Affecto, 64 30308

Phone/Fax: 3 404-506-7239 Contact: 4 Toja Abraham

Company: 1 Southern Company Services

of Business Days (Rush)

(Must be cleared through Env. Lab. prior to shipment)

Sample Type Key: 23

PRESERVATIVE 21

HN03 7

HUDS THE

S/24/16@ 15:35

Sample Received Date: 10 Sample Received By: 11_

Signature

6-Grab 0-Other

Contact: 4 Project Locat	Contact: 4 Jaju Abraham Project Location: 5 Plant Hammond	Shop		Sample Received By: 11 Afflect for Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.	assumed accepi	table by	7	AN	ALYSIS R	ANALYSIS REQUESTED 22	Matrix Key: 24 0-0i S-Solid GW-Ground Water S-Solid WW-Waste Water SL-Sludge WW-Waste Water W-Wipe DW-Drinking Water In Jimia
Account Number: 6.	Account Number: 6 Special Instructions: 7 Hammond AP CCR 62	AP CCR	3				五.亚.9	oce 493	812×2118		ive Key hloric / cid Acid n Hydr oric Ac
LAB USE ONLY 14	Sample Number 15	Collec	Collection 16	Sample Description 17	ηγT əlq		stnoO to भ यज	hog 'g	NOW S		I-Ice U-Unpreserved O-Other (Specify)
LAB ID		Date	Тіте			itsM 	M	, 13 201	ליין ליין		LAB USE ONLY 26 Comments
103584001	03584001 HGWC-18	5.24-16	10:24	Hammond AP (5W)	66	6w -		-	-		
						+	-				
						20					
	2										
F	EOD CUAIN OF CHETODY HET ONLY 27	CHICTODY	TIEL ONLY	200							
O Relinguished hv. 28		U (00) 10	Date/Time		1800	0	(Q)	SE UNIX	: Sample Re	t Information 30	1 mens and 111
9 Received by: 29	29		Date/Time		0-10 (STATE-115 4/1)	3		3/2	WITHICE, COOPERIN	poor	entriton in
Relinquished by:	by:		Date/Time	5	á						
Received by:			Date/Time								
347156B				WHITE, CANARY & PINK—Laboratory		ENROD-	GOLDENROD—Originator				(See Back For Instructions)

Sample Receipt Checklist



Client:

Hammond

of Samples:

Workorder No.:

103584

Tracking No:

Carrier:

HAND

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	5
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

No non-conformance noted.



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: AAA0792 February 02, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

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All test results relate only to the samples analyzed.



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

February 02, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-1	AAA0792-01	Ground Water	01/24/17 10:05	01/25/17 11:30
HGWA-2	AAA0792-02	Ground Water	01/24/17 11:30	01/25/17 11:30
HGWA-3	AAA0792-03	Ground Water	01/24/17 11:29	01/25/17 11:30
HGWA-4	AAA0792-04	Ground Water	01/24/17 13:08	01/25/17 11:30
HGWA-5	AAA0792-05	Ground Water	01/24/17 15:15	01/25/17 11:30
HGWA-6	AAA0792-06	Ground Water	01/24/17 15:08	01/25/17 11:30



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

Report No.: AAA0792

Client ID: HGWA-1

Date/Time Sampled: 1/24/2017 10:05:00AM

Matrix: Ground Water

February 02, 2017

Project: CCR Event

Lab Number ID: AAA0792-01

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	342	25	10	mg/L	SM 2540 C		1	01/27/17 15:00	01/27/17 15:00	7010698	JPT
Inorganic Anions											
Chloride	5.2	0.25	0.01	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 11:02	7010651	RLC
Fluoride	0.09	0.30	0.004	mg/L	EPA 300.0	J	1	01/26/17 08:07	01/26/17 11:02	7010651	RLC
Sulfate	46	1.0	0.09	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 11:02	7010651	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Barium	0.0280	0.0100	0.0004	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Boron	0.0165	0.0400	0.0064	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Calcium	95.7	25.0	1.55	mg/L	EPA 6020B		50	01/26/17 15:50	01/30/17 19:32	7010649	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:27	7010649	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 14:55	7010766	MTC



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

Report No.: AAA0792

Client ID: HGWA-2

Date/Time Sampled: 1/24/2017 11:30:00AM

Matrix: Ground Water

February 02, 2017

Project: CCR Event

Lab Number ID: AAA0792-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	129	25	10	mg/L	SM 2540 C		1	01/27/17 15:00	01/27/17 15:00	7010698	JPT
Inorganic Anions											
Chloride	6.1	0.25	0.01	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 11:22	7010651	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 11:22	7010651	RLC
Sulfate	46	1.0	0.09	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 11:22	7010651	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Barium	0.102	0.0100	0.0004	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Beryllium	0.0001	0.0030	0.00008	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Boron	0.0365	0.0400	0.0064	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Calcium	18.5	5.00	0.311	mg/L	EPA 6020B		10	01/26/17 15:50	01/31/17 14:02	7010649	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Cobalt	0.0206	0.0100	0.0005	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 19:50	7010649	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 14:57	7010766	MTC



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

Project: CCR Event

Lab Number ID: AAA0792-03

Date/Time Received: 1/25/2017 11:30:00AM

February 02, 2017

Report No.: AAA0792 Client ID: HGWA-3

Date/Time Sampled: 1/24/2017 11:29:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	300	25	10	mg/L	SM 2540 C		1	01/27/17 15:00	01/27/17 15:00	7010698	JPT
Inorganic Anions											
Chloride	6.4	0.25	0.01	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 11:43	7010651	RLC
Fluoride	0.06	0.30	0.004	mg/L	EPA 300.0	J	1	01/26/17 08:07	01/26/17 11:43	7010651	RLC
Sulfate	48	1.0	0.09	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 11:43	7010651	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Barium	0.126	0.0100	0.0004	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Boron	0.0100	0.0400	0.0064	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Calcium	69.6	25.0	1.55	mg/L	EPA 6020B		50	01/26/17 15:50	01/30/17 20:07	7010649	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Lithium	0.0030	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 20:01	7010649	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 14:59	7010766	MTC



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

Report No.: AAA0792

Client ID: HGWA-4

Date/Time Sampled: 1/24/2017 1:08:00PM

Matrix: Ground Water

February 02, 2017

Project: CCR Event

Lab Number ID: AAA0792-04

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	131	25	10	mg/L	SM 2540 C		1	01/27/17 15:00	01/27/17 15:00	7010698	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.01	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 12:04	7010651	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 12:04	7010651	RLC
Sulfate	5.7	1.0	0.09	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 12:04	7010651	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Barium	0.0192	0.0100	0.0004	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Boron	0.0145	0.0400	0.0064	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Calcium	30.8	25.0	1.55	mg/L	EPA 6020B		50	01/26/17 15:50	01/30/17 20:18	7010649	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:13	7010649	CSW
Mercury	0.00010	0.00050	0.000041	mg/L	EPA 7470A	J	1	01/31/17 11:00	01/31/17 15:02	7010766	MTC



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

Report No.: AAA0792

Client ID: HGWA-5

Date/Time Sampled: 1/24/2017 3:15:00PM

Matrix: Ground Water

February 02, 2017

Project: CCR Event

Lab Number ID: AAA0792-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	156	25	10	mg/L	SM 2540 C		1	01/27/17 15:00	01/27/17 15:00	7010698	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 12:24	7010651	RLC
Fluoride	0.09	0.30	0.004	mg/L	EPA 300.0	J	1	01/26/17 08:07	01/26/17 12:24	7010651	RLC
Sulfate	20	1.0	0.09	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 12:24	7010651	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Barium	0.0478	0.0100	0.0004	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Boron	0.0072	0.0400	0.0064	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Calcium	24.5	5.00	0.311	mg/L	EPA 6020B		10	01/26/17 15:50	01/31/17 14:08	7010649	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Selenium	0.0011	0.0100	0.0010	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Lithium	0.0028	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/26/17 15:50	01/30/17 20:24	7010649	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 15:04	7010766	MTC



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

Report No.: AAA0792

Client ID: HGWA-6

Date/Time Sampled: 1/24/2017 3:08:00PM

Matrix: Ground Water

February 02, 2017

Project: CCR Event

Lab Number ID: AAA0792-06

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	01/27/17 15:00	01/27/17 15:00	7010698	JPT
Inorganic Anions											
Chloride	1.9	0.25	0.01	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 12:45	7010651	RLC
Fluoride	0.02	0.30	0.004	mg/L	EPA 300.0	J	1	01/26/17 08:07	01/26/17 12:45	7010651	RLC
Sulfate	37	1.0	0.09	mg/L	EPA 300.0		1	01/26/17 08:07	01/26/17 12:45	7010651	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Barium	0.168	0.0100	0.0004	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Beryllium	ND	0.0030	0.0004	mg/L	EPA 6020B		5	01/26/17 15:50	01/31/17 14:26	7010649	CSW
Boron	ND	0.200	0.0321	mg/L	EPA 6020B	R-01	5	01/26/17 15:50	01/31/17 14:26	7010649	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Calcium	48.3	25.0	1.55	mg/L	EPA 6020B		50	01/26/17 15:50	01/31/17 14:20	7010649	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/26/17 15:50	01/31/17 14:13	7010649	CSW
Lithium	0.0108	0.0500	0.0103	mg/L	EPA 6020B	J	5	01/26/17 15:50	01/31/17 14:26	7010649	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 15:11	7010766	MTC



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

Report No.: AAA0792

February 02, 2017

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010698 - SM 2540 C											
Blank (7010698-BLK1)						Prepar	ed & Analy	yzed: 01/2	7/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7010698-BS1)						Prepar	ed & Analy	yzed: 01/2	7/17		
Total Dissolved Solids	403	25	10	mg/L	400.00		101	84-108			
Duplicate (7010698-DUP1)		Soi	urce: AAA0	792-05		Prepar	ed & Analy	yzed: 01/2	7/17		
Total Dissolved Solids	121	25	10	mg/L		156			25	10	QR-03



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

Report No.: AAA0792

February 02, 2017

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010651 - EPA 300.0											
Blank (7010651-BLK1)						Prepare	ed & Analy	yzed: 01/26	6/17		
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 (7010651-BS1)						Prepare	ed & Analy	yzed: 01/26	6/17		
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	9.89	0.30	0.004	mg/L	10.020		99	90-110			
Sulfate	10.4	1.0	0.09	mg/L	10.020		104	90-110			
Matrix Spike (7010651-MS1)		Soi	urce: AAA07	799-01		Prepare	ed & Analy	yzed: 01/26	6/17		
Chloride	12.1	0.25	0.01	mg/L	10.010	2.11	100	90-110			
Fluoride	10.0	0.30	0.004	mg/L	10.020	0.01	100	90-110			
Sulfate	17.6	1.0	0.09	mg/L	10.020	8.18	94	90-110			
Matrix Spike Dup (7010651-MSD1)		Soi	urce: AAA07	799-01		Prepare	ed & Analy	yzed: 01/26	6/17		
Chloride	12.1	0.25	0.01	mg/L	10.010	2.11	100	90-110	0.1	15	
Fluoride	10.1	0.30	0.004	mg/L	10.020	0.01	100	90-110	0.3	15	
Sulfate	17.6	1.0	0.09	mg/L	10.020	8.18	94	90-110	0.1	15	



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0792

February 02, 2017

Metals, Total - Quality Control

Batch 7010649 - EPA 3005A Blank (7010649-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium	ND ND ND	0.0030									
Antimony Arsenic Barium Beryllium Boron Cadmium Calcium	ND	0.0030									
Arsenic Barium Beryllium Boron Cadmium Calcium	ND	0.0030				Prepare	ed: 01/26/	17 Analyze	ed: 01/30/	17	
Barium Beryllium Boron Cadmium Calcium			0.0008	mg/L				•			
Beryllium Boron Cadmium Calcium	ND	0.0050	0.0016	mg/L							
Boron Cadmium Calcium		0.0100	0.0004	mg/L							
Cadmium Calcium	ND	0.0030	0.00008	mg/L							
Calcium	ND	0.0400	0.0064	mg/L							
	ND	0.0010	0.00007	mg/L							
Oh ma mai	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 (7010649-BS1)						Prenare	ad: 01/26/:	17 Analyze	ad: 01/30/	17	
Antimony	0.108	0.0030	0.0008	mg/L	0.10000	Порин	108	80-120	5a. 0 17007	.,	
Arsenic	0.0978	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.102	0.0100	0.0004	mg/L	0.10000		102	80-120			
Beryllium	0.0974	0.0030	0.00008	mg/L	0.10000		97	80-120			
Boron	0.985	0.0400	0.0064	mg/L	1.0000		99	80-120			
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	1.02	0.500	0.0311	mg/L	1.0000		102	80-120			
Chromium	0.100	0.0100	0.0009	mg/L	0.10000		100	80-120			
Cobalt	0.0969	0.0100	0.0005	mg/L	0.10000		97	80-120			
Copper	0.114	0.0250	0.0005	mg/L	0.10000		114	80-120			
Lead	0.100	0.0050	0.0001	mg/L	0.10000		100	80-120			
Molybdenum	0.107	0.0100	0.0017	mg/L	0.10000		107	80-120			
Nickel	0.0999	0.0100	0.0006	mg/L	0.10000		100	80-120			
Selenium	0.0998	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Thallium	0.0988	0.0010	0.0002	mg/L	0.10000		99	80-120			
Vanadium	0.0978	0.0100	0.0071	mg/L	0.10000		98	80-120			
Zinc	0.102	0.0100	0.0021	mg/L	0.10000		102	80-120			
Lithium	0.0988	0.0500	0.0021	mg/L	0.10000		99	80-120			



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

Report No.: AAA0792

Metals, Total - Quality Control

February 02, 2017

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010649 - EPA 3005A											
Matrix Spike (7010649-MS1)		Sou	ırce: AAA08	00-01		Prepare	ed: 01/26/	17 Analyz	ed: 01/30	/17	
Antimony	0.110	0.0030	0.0008	mg/L	0.10000	0.0024	107	75-125			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000	ND	100	75-125			
Barium	0.110	0.0100	0.0004	mg/L	0.10000	0.0071	103	75-125			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125			
Boron	1.04	0.0400	0.0064	mg/L	1.0000	ND	104	75-125			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000	0.0002	103	75-125			
Calcium	2.58	0.500	0.0311	mg/L	1.0000	1.62	96	75-125			
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	ND	105	75-125			
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	0.0049	100	75-125			
Copper	0.105	0.0250	0.0005	mg/L	0.10000	ND	105	75-125			
Lead	0.0991	0.0050	0.0001	mg/L	0.10000	0.0002	99	75-125			
Molybdenum	0.108	0.0100	0.0017	mg/L	0.10000	ND	108	75-125			
Nickel	0.108	0.0100	0.0006	mg/L	0.10000	0.0050	103	75-125			
Selenium	0.0942	0.0100	0.0010	mg/L	0.10000	ND	94	75-125			
Silver	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125			
Thallium	0.0975	0.0010	0.0002	mg/L	0.10000	ND	98	75-125			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125			
Zinc	0.109	0.0100	0.0021	mg/L	0.10000	0.0053	104	75-125			
Lithium	0.104	0.0500	0.0021	mg/L	0.10000	ND	104	75-125			
Matrix Spike Dup (7010649-MSD1)		Sai	ırce: AAA08	_			od: 01/26/		od: 01/20	/17	
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	0.0024	105	17 Analyz 75-125	2	20	
Arsenic	0.0973	0.0050	0.0016	mg/L	0.10000	ND	97	75-125	3	20	
Barium	0.107	0.0100	0.0004	mg/L	0.10000	0.0071	100	75-125	3	20	
Beryllium	0.0933	0.0030	0.00008	mg/L	0.10000	ND	93	75-125	8	20	
Boron	0.972	0.0400	0.0064	mg/L	1.0000	ND	97	75-125	6	20	
Cadmium	0.0992	0.0010	0.00007	mg/L	0.10000	0.0002	99	75-125	4	20	
Calcium	2.58	0.500	0.0311	mg/L	1.0000	1.62	95	75-125 75-125	0.3	20	
Chromium	0.0990	0.0100	0.0009	mg/L	0.10000	ND	99	75-125 75-125	6	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	0.0049	98	75-125 75-125	2	20	
Copper	0.0985	0.0100	0.0005	mg/L	0.10000	0.0049 ND	98	75-125 75-125	7	20	
Lead	0.0981	0.0250	0.0003	_	0.10000	0.0002	98	75-125 75-125	1	20	
Leau Molybdenum	0.102	0.0030	0.0001	mg/L mg/L	0.10000	0.0002 ND	102	75-125 75-125	1 5	20	
•	0.102	0.0100	0.0017	•	0.10000	0.0050		75-125 75-125	5 5	20	
Nickel	0.103	0.0100	0.0000	mg/L			98				
Selenium	0.0935	0.0100		mg/L	0.10000	ND	94	75-125	0.7	20	
Silver	0.0970	0.0100	0.0005	mg/L	0.10000	ND	97	75-125	4	20	
Thallium			0.0002	mg/L	0.10000	ND	96	75-125	2	20	
Vanadium	0.0966	0.0100	0.0071	mg/L	0.10000	ND	97	75-125	6	20	
Zinc	0.103	0.0100	0.0021	mg/L	0.10000	0.0053	98	75-125	6	20	
Lithium	0.0994	0.0500	0.0021	mg/L	0.10000	ND	99	75-125	4	20	



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0792

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010649 - EPA 3005A											
Post Spike (7010649-PS1)		Soi	urce: AAA080	00-01		Prepare	ed: 01/26/	17 Analyz	ed: 01/30/	17	
Antimony	96.9			ug/L	100.00	2.42	95	80-120			
Arsenic	98.9			ug/L	100.00	-0.106	99	80-120			
Barium	109			ug/L	100.00	7.12	102	80-120			
Beryllium	105			ug/L	100.00	0.0204	105	80-120			
Boron	1100			ug/L	1000.0	5.27	110	80-120			
Cadmium	105			ug/L	100.00	0.164	105	80-120			
Calcium	2820			ug/L	1000.0	1620	120	80-120			
Chromium	101			ug/L	100.00	0.290	101	80-120			
Cobalt	102			ug/L	100.00	4.89	97	80-120			
Copper	99.4			ug/L	100.00	0.407	99	80-120			
Lead	97.3			ug/L	100.00	0.162	97	80-120			
Molybdenum	106			ug/L	100.00	0.0327	106	80-120			
Nickel	105			ug/L	100.00	5.00	100	80-120			
Selenium	98.4			ug/L	100.00	0.289	98	80-120			
Silver	95.8			ug/L	100.00	0.0041	96	80-120			
Thallium	97.2			ug/L	100.00	0.0553	97	80-120			
Vanadium	98.7			ug/L	100.00	-1.32	99	80-120			
Zinc	104			ug/L	100.00	5.30	99	80-120			
Lithium	108			ug/L	100.00	1.20	107	80-120			
Batch 7010766 - EPA 7470A											
Blank (7010766-BLK1)						Prepare	ed & Analy	yzed: 01/3	1/17		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7010766-BS1)						Prepare	ed & Analy	yzed: 01/3	1/17		
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			

February 02, 2017



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

Report No.: AAA0792

February 02, 2017

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010766 - EPA 7470A											
Matrix Spike (7010766-MS1)		Sou	ırce: AAA07	92-01		Prepare	ed & Analy	zed: 01/31	1/17		
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7010766-MSD1)		Sou	ırce: AAA07	92-01		Prepare	ed & Analy	zed: 01/31	1/17		
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	4	20	
Post Spike (7010766-PS1)		Source: AAA0792-01 Prepared & Analyzed: 01/31/17									
Mercury	1.66			ug/L	1.6667	0.0236	98	80-120			

Metals, Total - Quality Control



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 February 02, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit MDL - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

- **R-01** Elevated reporting limit due to matrix interference.
- **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.
 - J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

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

/_Pace Analytical" 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

P

PAGE

5 - NaOHZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - ≤6°C not frozen REMARKS/ADDITIONAL INFORMATION 1 - HCI, ≤6°C 2 - H₂SO4, ≤6°C 4 - N8OH, <6°C P. PRODUCT SL. SLUDGE PRESERVATION L. LIQUID SD - SOLID 3- HNO A- AR *MATRIX CODES: ŝ DRINKING WATER SW - SURFACE WATER GW - GROUNDWATER ST. STORM WATER P. PLASTIC A. AMBER GLASS G. CLEAR GLASS WASTEWATER V. VOA VAL S. STERILE O. OTHER WATER ş 40 女 2 医 原 三 氏 1 4 B **- 0** <u>ANALYSIS REQUESTED</u> (0266/2156 918-WS) ဗ 8SS & 8SS mulbe A (EPA 300.0 & SM 2540C) o. CI, F, SO, & TDS VI & III .qqA YZS he9 alsieM (0Y4Y0S08 A93) ٥ n CONTAINER TYPE: # Of 00×-<-×E laburch@southemco.com SAMPLE IDENTIFICATION Heath McCoride HGWA-4 HGWA-5 HGWA-2 HGWA-3 HGWA-6 HGWA-1 Maria Padilk Plant Hammond - AP 1&2 8 LENT ADDRESS/PHONE NUMBER/FAX NUMBER: #Od ä × 9240 × × 0020 42 invernass Center Parkway BIN B426 MATRIX CODE* REQUESTED COMPLETION DATE: 3 <u>₹</u> ΘŽ ₹ ₹ 3 Lauren Petty PROJECT NAME/STATE: Collection TIME 1130 15.15 15:08 10:05 1129 13.08 Birmingham, AL 35242 CLIENT NAME **Seorgia Power** 205-992-5417 REPORT TO PROJECT # Collection DATE 01/24/17 01/24/17 01/24/17 01/24/17 01/24/17 01/24/17

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

LOG-IN CHECKLIST

Printed: 1/26/2017 11:58:07AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AAA0792

Date Received: 01/25/17 11:30 **Logged In By:** Mohammad M. Rahman

OBSERVATIONS

#Samples: 6 **#Containers:** 24

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:

(724)850-5600



February 23, 2017

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30209047

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 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

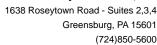
Sugnely Sellins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30209047

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 #: 42700
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282

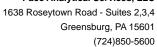
South Dakota Certification

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

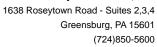




SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30209047

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30209047001	HGWA-1	Water	01/24/17 10:05	01/26/17 10:15
30209047002	HGWA-2	Water	01/24/17 11:30	01/26/17 10:15
30209047003	HGWA-3	Water	01/24/17 11:29	01/26/17 10:15
30209047004	HGWA-4	Water	01/24/17 13:08	01/26/17 10:15
30209047005	HGWA-5	Water	01/24/17 15:15	01/26/17 10:15
30209047006	HGWA-6	Water	01/24/17 15:08	01/26/17 10:15

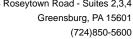




SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30209047

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30209047001	HGWA-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209047002	HGWA-2	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209047003	HGWA-3	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209047004	HGWA-4	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209047005	HGWA-5	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209047006	HGWA-6	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

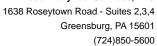




ANALYTICAL RESULTS - RADIOCHEMISTRY

roject: ace Project No.:	Plant Hammond			
Pace Project No.:	30209047			

Sample: HGWA-1	Lab ID: 30209047	7001 Collected: 01/24/17 10:05	Received:	01/26/17 10:15 N	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.00387 ± 0.0679 (0.203) C:82% T:NA	pCi/L	02/14/17 10:42	13982-63-3	
Radium-228	EPA 9320	$0.373 \pm 0.449 (0.948)$	pCi/L	02/22/17 12:44	15262-20-1	
Total Radium	Total Radium Calculation	C:66% T:75% 0.373 ± 0.551 (1.25)	pCi/L	02/22/17 17:32	7440-14-4	
Sample: HGWA-2	Lab ID: 30209047		Received:	01/26/17 10:15 N	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.172 ± 0.121 (0.183) C:89% T:NA	pCi/L	02/14/17 10:42	13982-63-3	
Radium-228	EPA 9320	0.650 ± 0.415 (0.770) C:67% T:85%	pCi/L	02/22/17 12:44	15262-20-1	
Total Radium	Total Radium Calculation	0.908 ± 0.597 (1.04)	pCi/L	02/22/17 17:32	7440-14-4	
Sample: HGWA-3 PWS:	Lab ID: 3020904 7 Site ID:	7003 Collected: 01/24/17 11:29 Sample Type:	Received:	01/26/17 10:15 N	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.127 ± 0.104 (0.174) C:95% T:NA	pCi/L	02/14/17 10:42	13982-63-3	
Radium-228	EPA 9320	0.146 ± 0.336 (0.749)	pCi/L	02/22/17 12:45	15262-20-1	
Total Radium	Total Radium Calculation	C:76% T:78% 0.336 ± 0.492 (1.01)	pCi/L	02/22/17 17:32	7440-14-4	
Sample: HGWA-4 PWS:	Lab ID: 3020904 7 Site ID:	7004 Collected: 01/24/17 13:08 Sample Type:	Received:	01/26/17 10:15 N	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0576 ± 0.111 (0.256)	pCi/L	02/14/17 10:42	13982-63-3	
Radium-228	EPA 9320	C:95% T:NA 0.521 ± 0.529 (1.10)	pCi/L	02/22/17 12:45	15262-20-1	
Total Radium	Total Radium Calculation	C:63% T:77% 0.607 ± 0.696 (1.48)	pCi/L	02/22/17 17:32	7440-14-4	
Sample: HGWA-5 PWS:	Lab ID: 30209047 Site ID:	7005 Collected: 01/24/17 15:15 Sample Type:	Received:	01/26/17 10:15 N	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0516 ± 0.0854 (0.188) C:86% T:NA	pCi/L	02/14/17 10:42	13982-63-3	
Radium-228	EPA 9320	-0.197 ± 0.527 (1.26) C:68% T:66%	pCi/L	02/22/17 13:05	15262-20-1	





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30209047

Sample: HGWA-5 Lab ID: 30209047005 Collected: 01/24/17 15:15 Received: 01/26/17 10:15 Matrix: Water

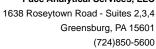
PWS: Site ID: Sample Type:

Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual

Sample: HGWA-6 Lab ID: 30209047006 Collected: 01/24/17 15:08 Received: 01/26/17 10:15 Matrix: Water

PWS: Site ID: Sample Type:

Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 $0.0606 \pm 0.0963 \quad (0.211)$ Radium-226 pCi/L 02/14/17 10:42 13982-63-3 C:81% T:NA EPA 9320 Radium-228 0.874 ± 0.570 (1.08) pCi/L 02/20/17 20:10 15262-20-1 C:64% T:75% Total Radium Total Radium 0.965 ± 0.714 (1.40) pCi/L 02/22/17 16:57 7440-14-4 Calculation





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30209047

QC Batch: 248823 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30209047001, 30209047002, 30209047003, 30209047004, 30209047005, 30209047006

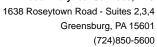
METHOD BLANK: 1223621 Matrix: Water

Associated Lab Samples: 30209047001, 30209047002, 30209047003, 30209047004, 30209047005, 30209047006

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.0812 ± 0.121 (0.265) C:94% T:NA pCi/L 02/14/17 10:57

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30209047

QC Batch: 248898 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30209047001, 30209047002, 30209047003, 30209047004, 30209047005, 30209047006

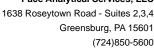
METHOD BLANK: 1224047 Matrix: Water

Associated Lab Samples: 30209047001, 30209047002, 30209047003, 30209047004, 30209047005, 30209047006

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.520 ± 0.375 (0.722) C:72% T:87% pCi/L 02/20/17 20:11

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.





QUALIFIERS

Project: Plant Hammond Pace Project No.: 30209047

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

Date: 02/23/2017 03:08 PM

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 "

LAB USE ONLY 8 000 003 1000 800 8 Results Requested By: 2/17/2017 EQuIS deliverable required. Comments Requested Analysis <u>5</u> 0 Date/Time 7617 Radium 226, 228, Total × × Owner Received Date: Preserved Containers ЕОИН Matrix 8 Ø 8 ĕ Ŋ <u>8</u> Received By AAA0792-04 AAA0792-06 AAA0792-01 AAA0792-02 AAA0792-03 AAA0792-05 Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Collect Date/Time Lab ID Date/Time Pace - Pittsburgh Subcontract To: 1/24/2017 11:30 1/24/2017 11:29 1/24/2017 13:08 1/24/2017 15:15 1/24/2017 15:08 1/24/2017 10:05 Stes. 2,3,4 Workorder Name: Sample Type G G g G G Peachtree Corners, GA 30092 Workorder: AAA0792 110 Technology Parkway Pace Analytical Atlanta Phone (770)-734-4200 Transfers | Released By **Betsy McDaniel** tem Sample ID HGWA-2 HGWA-6 HGWA-3 HGWA-4 HGWA-5 HGWA-1 Report To: ∞

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC Received on Ice Y of N This chain of custody is considered complete as is since this information is available in the owner laboratory. Custody Seal Y of N ပွ Cooler Temperature on Receipt

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Intack

P

PAGE

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

CHAIN OF CUSTODY RECORD

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TO THE STATE OF TH		3			911 + 145 4 1480			S S	10.00	\ <u>8</u>	KKI)	20		100	Tracking ft,		
	Wes - I No	M	S No	2			9	012	Hamm	8	CS.XISX		NOTE TO A STATE OF THE PARTY OF				

Sample Condition Upon Receipt Pittsburgh Project #30209047 Pace Analytical Client Name: Courier: Fed Ex UPS USPS Client Commercial Pace Other Tracking #: (08126101898) Custody Seal on Cooler/Box Present: yes Seals intact: yes no Type of Ice: Wet Blue Thermometer Used Correction Factor: C Final Temp: Cooler Temperature **Observed Temp** Temp should be above freezing to 6°C Date and Initials of person examining contents: ARM No N/A Yes Comments: Chain of Custody Present: Chain of Custody Filled Out: 3. Chain of Custody Relinquished: Sampler Name & Signature on COC: 5. Sample Labels match COC: -Includes date/time/ID Matrix: Samples Arrived within Hold Time: Short Hold Time Analysis (<72hr remaining): Rush Turn Around Time Requested: Sufficient Volume: 10. Correct Containers Used: -Pace Containers Used: 11. Containers Intact: 12. Orthophosphate field filtered 13. Organic Samples checked for dechlorination: 14. Filtered volume received for Dissolved tests All containers have been checked for preservation. 15. All containers needing preservation are found to be in compliance with EPA recommendation. Date/time of completed preservation exceptions: VOA, coliform, TOC, O&G, Phenolics Lot # of added preservative 16. Headspace in VOA Vials (>6mm): 17. Trip Blank Present: Trip Blank Custody Seals Present Rad Aqueous Samples Screened > 0.5 mrem/hr Date: completed: Client Notification/ Resolution: Contacted By: Date/Time: Person Contacted: Comments/ Resolution:

 \square 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

Analyst Must Manually Enter All Fields Highlighted in Yellow

LAL 2/10/2017

Date:

33938 DW

Worklist: Matrix:

MB Sample ID

Method Blank Assessment

MB concentration: M/B Counting Uncertainty:

Ra-226

Test: Analyst:

Face Analytical"

Sample Matrix Spike Control Assessment

Sample Collection Date

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):

MSD Aliquot (L, g, F): MS Target Conc.(pCi/L, g, F):

MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated): Sample Result:

N LCSD33938

LCSD (Y or N)? LCS33938

Laboratory Control Sample Assessment

0.122 0.180 0.397 1.33 N/A Pass

MB MDC:

MB Numerical Performance Indicator:

MB Status vs Numerical Indicator:

MB Status vs. MDC:

2/14/2017 16-026 44.669

Count Date: Spike I.D.: Spike Concentration (pCi/mL): Volume Used (mL): Aliquot Volume (L, g, F): Uncertainty (Calculated):

0.10 0.502 8.890

0.418 7.710

Target Conc. (pCi/L, g, F):

Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F):

Percent Recovery:

Status vs Recovery

Duplicate Sample Assessment

Numerical Performance Indicator: Status vs Numerical Indicator:

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.

MS Status vs Recovery: MSD Status vs Recovery: MSD Status vs Numerical Indicator:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result:

LCS/LCSD in the

space below. other than

0.156 0.199 0.199

Sample Result (pCi/L, g, F):
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC?

See Below ##

Enter Duplicate

sample IDs if

30208670001DUP 30208670001

Sample I.D.:

Duplicate Sample I.D.

0.075

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:

0208670001DUP

71.67% -0.651

Duplicate RPD:

Duplicate Numerical Performance Indicator:

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD:

N/A

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.

Face Analytical"

Quality Control Sample Performance Assessment

2/9/2017 Ra-228 JLW Analyst: Date: Test:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment 33964 DW Worklist: Matrix:

Sample I.D. Sample MS I.D.

Sample MSD I.D.

Spike I.D.:

Sample Collection Date:

MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL):

ank Assessment		
MB Sample ID		1224047
MB concentration:		0.520
M/B Counting Uncertainty:		0.364
MB MDC:	57	0.722
MB Numerical Performance Indicator:		2.81
MB Status vs Numerical Indicator:		A/A
MB Status vs. MDC:		Pass

Method Bla

Opine volume used in Mico (int.).	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:
					z	LCSD33964													
271.0	2.81	A/A	Pass		LCSD (Y or N)?	LCS33964	2/20/2017	16-027	25,250	0.20	0.804	6.281	0.452	6.644	0.773	0.79	105.78%	A/Z	Pass
NO MO	MB Numerical Performance Indicator:	MB Status vs Numerical Indicator:	MB Status vs. MDC:		_		Count Date:	Spike I.D.:	Spike Concentration (pCi/mL):	Volume Used (mL):	Aliquot Volume (L, g, F):	Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCi/L, g, F):	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	Numerical Performance Indicator:	Percent Recovery:	Status vs Numerical Indicator:	Status vs Recovery:

aboratory Control Sample Assessment

Matrix Spike/Matrix Spike Duplicate Sample Assessment Sample I.D. Sample MS I.D. Sample MS I.D. Sample MAS 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:

30209047006DUP

Duplicate Sample I.D.

30209047006

Sample I.D.:

Duplicate Sample Assessmen

0.548 0.471 0.524 See Below ##

Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F):

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC?

1.044 60.06%

Duplicate Numerical Performance Indicator: Duplicate RPD:

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD

N/A Fail*

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

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

Comments:



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: AAA0862 February 03, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, LLC.

All test results relate only to the samples analyzed.



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

February 03, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-7	AAA0862-01	Ground Water	01/25/17 15:13	01/26/17 12:05
HGWC-8	AAA0862-02	Ground Water	01/25/17 14:48	01/26/17 12:05



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

Report No.: AAA0862

Client ID: HGWC-7

Date/Time Sampled: 1/25/2017 3:13:00PM

Matrix: Ground Water

February 03, 2017

Project: CCR Event

Lab Number ID: AAA0862-01

Date/Time Received: 1/26/2017 12:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	461	25	10	mg/L	SM 2540 C		1	01/30/17 16:05	01/30/17 16:05	7010738	JPT
Inorganic Anions											
Chloride	54	1.2	0.06	mg/L	EPA 300.0		5	01/27/17 16:22	02/01/17 08:15	7010718	RLC
Fluoride	0.24	0.30	0.004	mg/L	EPA 300.0	J	1	01/27/17 16:22	01/27/17 21:12	7010718	RLC
Sulfate	110	5.0	0.46	mg/L	EPA 300.0		5	01/27/17 16:22	02/01/17 08:15	7010718	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Barium	0.0747	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:28	7010760	CSW
Boron	0.764	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Calcium	94.5	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:05	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Molybdenum	0.0317	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 19:59	7010760	CSW
Lithium	0.0024	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 15:28	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 15:30	7010766	MTC



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

Project: CCR Event

Report No.: AAA0862

Lab Number ID: AAA0862-02

Client ID: HGWC-8

Date/Time Received: 1/26/2017 12:05:00PM

February 03, 2017

Date/Time Sampled: 1/25/2017 2:48:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	744	25	10	mg/L	SM 2540 C		1	01/30/17 16:05	01/30/17 16:05	7010738	JPT
Inorganic Anions											
Chloride	110	2.5	0.13	mg/L	EPA 300.0		10	01/27/17 16:22	02/01/17 08:37	7010718	RLC
Fluoride	1.1	0.30	0.004	mg/L	EPA 300.0		1	01/27/17 16:22	01/27/17 22:14	7010718	RLC
Sulfate	260	10	0.92	mg/L	EPA 300.0		10	01/27/17 16:22	02/01/17 08:37	7010718	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Barium	0.0780	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:46	7010760	CSW
Boron	2.01	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:16	7010760	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Calcium	142	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:16	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Cobalt	0.0020	0.0100	0.0005	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Molybdenum	0.478	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:11	7010760	CSW
Lithium	0.0026	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 15:46	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 15:33	7010766	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

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February 03, 2017

Report No.: AAA0862

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010738 - SM 2540 C											
Blank (7010738-BLK1)						Prepar	ed & Analy	yzed: 01/30	0/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7010738-BS1)						Prepar	ed & Analy	yzed: 01/30)/17		
Total Dissolved Solids	406	25	10	mg/L	400.00		102	84-108			
Duplicate (7010738-DUP1)		Sou	ırce: AAA08	361-02		Prepar	ed & Analy	yzed: 01/30)/17		
Total Dissolved Solids	131	25	10	mg/L		152			15	10	QR-03



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Georgia Power 2480 Maner Road Atlanta GA, 30339

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Report No.: AAA0862

February 03, 2017

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010718 - EPA 300.0											
Blank (7010718-BLK1)						Prepare	ed & Analy	/zed: 01/27	7/17		
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 (7010718-BS1)						Prepare	ed & Analy	/zed: 01/27	7/17		
Chloride	10.4	0.25	0.01	mg/L	10.010		104	90-110			
Fluoride	10.5	0.30	0.004	mg/L	10.020		105	90-110			
Sulfate	10.6	1.0	0.09	mg/L	10.020		106	90-110			
Matrix Spike (7010718-MS1)		Sou	ırce: AAA08	362-01		Prepare	ed & Analy	/zed: 01/27	7/17		
Chloride	57.0	0.25	0.01	mg/L	10.010	51.6	55	90-110			QM-02
Fluoride	10.8	0.30	0.004	mg/L	10.020	0.24	105	90-110			
Sulfate	100	1.0	0.09	mg/L	10.020	101	NR	90-110			QM-02
Matrix Spike Dup (7010718-MSD1)		Sou	ırce: AAA08	362-01		Prepare	ed & Analy	/zed: 01/27	7/17		
Chloride	56.5	0.25	0.01	mg/L	10.010	51.6	50	90-110	0.9	15	QM-02
Fluoride	10.8	0.30	0.004	mg/L	10.020	0.24	105	90-110	0.1	15	
Sulfate	101	1.0	0.09	mg/L	10.020	101	NR	90-110	0.4	15	QM-02



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Report No.: AAA0862

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Blank (7010760-BLK1)						Prepare	ed & Analy	zed: 01/3	1/17		
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (7010760-BS1)						Prepare	ed & Analy	/zed: 01/3	1/17		
Antimony	0.104	0.0030	0.0008	mg/L	0.10000		104	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.0974	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000		104	80-120			
Boron	1.06	0.0400	0.0064	mg/L	1.0000		106	80-120			
Cadmium	0.0997	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	1.06	0.500	0.0311	mg/L	1.0000		106	80-120			
Chromium	0.102	0.0100	0.0009	mg/L	0.10000		102	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.101	0.0250	0.0005	mg/L	0.10000		101	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000		103	80-120			
Nickel	0.103	0.0100	0.0006	mg/L	0.10000		103	80-120			
Selenium	0.100	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	0.100	0.0010	0.0002	mg/L	0.10000		100	80-120			
Vanadium	0.101	0.0100	0.0071	mg/L	0.10000		101	80-120			
Zinc	0.107	0.0100	0.0021	mg/L	0.10000		107	80-120			
Lithium	0.0962	0.0500	0.0021	mg/L	0.10000		96	80-120			

February 03, 2017



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0862

February 03, 2017

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Matrix Spike (7010760-MS1)		Soi	ırce: AAA09	09-08		Prepar	ed & Analy	/zed: 01/31	1/17		
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	ND	106	75-125			
Arsenic	0.109	0.0050	0.0016	mg/L	0.10000	ND	109	75-125			
Barium	0.209	0.0100	0.0004	mg/L	0.10000	0.105	104	75-125			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000	ND	104	75-125			
Boron	2.78	2.00	0.321	mg/L	1.0000	1.19	159	75-125			QM-02
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	145	25.0	1.55	mg/L	1.0000	139	618	75-125			QM-02
Chromium	0.106	0.0100	0.0009	mg/L	0.10000	ND	106	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.102	0.0250	0.0005	mg/L	0.10000	ND	102	75-125			
Lead	0.0985	0.0050	0.0001	mg/L	0.10000	0.0001	98	75-125			
Molybdenum	0.108	0.0100	0.0017	mg/L	0.10000	ND	108	75-125			
Nickel	0.0994	0.0100	0.0006	mg/L	0.10000	ND	99	75-125			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000	ND	103	75-125			
Silver	0.0976	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.0974	0.0010	0.0002	mg/L	0.10000	ND	97	75-125			
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0025	102	75-125			
Lithium	0.0978	0.0500	0.0021	mg/L	0.10000	0.0028	95	75-125			
Matrix Spike Dup (7010760-MSD1)		So	ırce: AAA09	09-08		Prenar	ed & Analy	/zed: 01/31	1/17		
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	ND	103	75-125	2	20	
Arsenic	0.108	0.0050	0.0016	mg/L	0.10000	ND	108	75-125	1	20	
Barium	0.202	0.0100	0.0004	mg/L	0.10000	0.105	97	75-125	3	20	
Beryllium	0.106	0.0030	0.00008	mg/L	0.10000	ND	106	75-125	2	20	
Boron	2.71	2.00	0.321	mg/L	1.0000	1.19	152	75-125	3	20	QM-02
Cadmium	0.0983	0.0010	0.00007	mg/L	0.10000	ND	98	75-125	3	20	QIVI 02
Calcium	142	25.0	1.55	mg/L	1.0000	139	298	75-125	2	20	QM-02
Chromium	0.0999	0.0100	0.0009	mg/L	0.10000	ND	100	75-125	6	20	Q 02
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	2	20	
Copper	0.0945	0.0250	0.0005	mg/L	0.10000	ND	95	75-125	7	20	
Lead	0.0990	0.0050	0.0001	mg/L	0.10000	0.0001	99	75-125	0.5	20	
Molybdenum	0.107	0.0100	0.0017	mg/L	0.10000	ND	107	75-125 75-125	0.6	20	
Nickel	0.0991	0.0100	0.0006	_	0.10000	ND	99	75-125 75-125	0.3	20	
	0.105	0.0100	0.0000	mg/L	0.10000			75-125 75-125	2	20	
Selenium Silver	0.103	0.0100	0.0010	mg/L	0.10000	ND ND	105 97	75-125 75-125	0.3	20 20	
	0.0974	0.0100	0.0005	mg/L							
Thallium	0.0973			mg/L	0.10000	ND	97	75-125	0.1	20	
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000	ND	102	75-125	4	20	
Zinc	0.100	0.0100 0.0500	0.0021	mg/L	0.10000	0.0025	97	75-125	5	20	
Lithium	0.100	0.0500	0.0021	mg/L	0.10000	0.0028	97	75-125	2	20	



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0862

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Post Spike (7010760-PS1)		So	ırce: AAA09	09-08		Prepare	ed & Analy	yzed: 01/3	1/17		
Antimony	92.7			ug/L	100.00	0.0220	93	80-120			
Arsenic	107			ug/L	100.00	-0.219	107	80-120			
Barium	196			ug/L	100.00	105	91	80-120			
Beryllium	105			ug/L	100.00	0.0100	105	80-120			
Boron	2660			ug/L	1000.0	1190	148	80-120			QM-02
Cadmium	100			ug/L	100.00	0.0104	100	80-120			
Calcium	143000			ug/L	1000.0	139000	377	80-120			QM-02
Chromium	107			ug/L	100.00	0.148	107	80-120			
Cobalt	102			ug/L	100.00	0.123	102	80-120			
Copper	97.5			ug/L	100.00	0.247	97	80-120			
Lead	94.5			ug/L	100.00	0.122	94	80-120			
Molybdenum	106			ug/L	100.00	0.0875	106	80-120			
Nickel	99.0			ug/L	100.00	0.284	99	80-120			
Selenium	106			ug/L	100.00	0.338	106	80-120			
Silver	93.9			ug/L	100.00	0.0015	94	80-120			
Thallium	93.8			ug/L	100.00	0.0007	94	80-120			
Vanadium	108			ug/L	100.00	-2.17	108	80-120			
Zinc	104			ug/L	100.00	2.53	101	80-120			
Lithium	100			ug/L	100.00	2.80	98	80-120			
Batch 7010766 - EPA 7470A											
Blank (7010766-BLK1)						Prepare	ed & Analy	yzed: 01/3	1/17		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7010766-BS1)						Prepare	ed & Analy	yzed: 01/3	1/17		
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			

February 03, 2017



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Report No.: AAA0862

Metals, Total - Quality Control

February 03, 2017

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010766 - EPA 7470A											
Matrix Spike (7010766-MS1)		Sou	ırce: AAA07	92-01		Prepar	ed & Analy	yzed: 01/3°	1/17		
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7010766-MSD1)		Sou	ırce: AAA07	92-01		Prepar	ed & Analy	yzed: 01/3°	1/17		
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	4	20	
Post Spike (7010766-PS1)		Sou	ırce: AAA07	92-01		Prepar	ed & Analy	yzed: 01/31	1/17		
Mercury	1.66			ua/L	1.6667	0.0236	98	80-120			



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 February 03, 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

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PAGE:

5 - NaOHZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - ≤6°C not frozen REHERIKS/ADDITIONAL INFORMATION 1 - HCI, ≤6°C 2 - H₂SO₄, ≤6°C 4 - NaOH, ≤6°C P. PRODUCI **PRESERVATION** SL. SLUDGE L. LIQUID sp. soup 3. HND, A - AIR FOR LAB USE ONL *MATRIX CODES: DRINKING WATER SW - SURFACE WATER ST - STORM WATER GW - GROUNDWATER MW - WASTEWATER A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE S - STERILE O - OTHER V - VOA VIAL W. WATER P - PLASTIC ***** J **4** 0 NリMBER Ò 288 PATE/TIME: DATE/TIME <u>ANALYSIS REQUESTED</u> 2017 01 25 Hammond COCS.xisx (OZE6/S1E6 918-MS) ٥. Radium 226 & 228 FEDEX Broken Not Present (EPA 300.0 & SM 2540C) CI, F, 50, & TDS RELINGUISHED BY: SAMPLE SKIPPED VIA (OTAT/0208 A93) œ ကြ Metals Part 257 App. III & IV CONTACKER TYPE: PRESERVATION: **j**0# laburch@southernco.com SAMPLE IDENTIFICATION / O AMax Heath McCorkla HOWC'B HGWC-1 Marie Padille 15:13 DATE/TIME: 1/25/2017 / DATE/TIME: Tempetatire: Plant Hammond - AP 1&2 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: g ဗ္ဗ 9 2 4 6 WA Mes) No NA 0020 42 Inverness Center Parkway BIN B426 MATRIX CODE* Lauren Petty REQUESTED COMPLETION DATE: § W.Virgo ß₩ SAMPLED BY AND TITLE Collection PROJECT NAME/STATE: 15:13 14:48 3irmingham, AL 35242 Ó M.Burch Mo RECEIVED BY: CLIENT NAME: Seorgia Power 205-992-5417 **EPORT TO:** Collection DATE PROJECT #: 01/25/17 01/25/17 Page 12 of 13



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

LOG-IN CHECKLIST

Printed: 1/27/2017 2:08:22PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 01/26/17 12:05

Work Order: AAA0862

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 2

#Containers: 8

Minimum Temp(C): 1.

1.0 **Maximum Temp(C):**

1.0

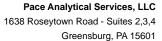
Custody Seal(s) Used:

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:



(724)850-5600



February 24, 2017

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30209140

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on January 27, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jacquelyn Collins

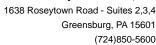
Sugnely Sellins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30209140

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

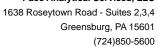
Rhode Island Certification #: 65-00282 South Dakota Certification

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

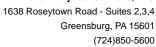




SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30209140

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30209140001	HGWC-7	Water	01/25/17 15:13	01/27/17 10:00
30209140002	HGWC-8	Water	01/25/17 14:48	01/27/17 10:00

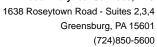




SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30209140

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30209140001	HGWC-7	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209140002	HGWC-8	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAI	1

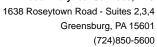




ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 3020914	10					
Sample: HGWC-7 PWS:	Lab ID: 302091 Site ID:	Collected: 01/25/17 15:13 Sample Type:	Received:	01/27/17 10:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0611 ± 0.100 (0.224) C:93% T:NA	pCi/L	02/14/17 10:56	13982-63-3	
Radium-228	EPA 9320	1.00 ± 0.575 (1.07) C:71% T:71%	pCi/L	02/23/17 11:38	15262-20-1	
Total Radium	Total Radium Calculation	1.06 ± 0.675 (1.29)	pCi/L	02/23/17 16:09	7440-14-4	
Sample: HGWC-8	Lab ID: 302091	140002 Collected: 01/25/17 14:48	Received:	01/27/17 10:00	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.250 ± 0.163 (0.276) C:97% T:NA	pCi/L	02/14/17 10:57	7 13982-63-3	
Radium-228	EPA 9320	0.609 ± 0.464 (0.911) C:65% T:76%	pCi/L	02/23/17 11:38	15262-20-1	
Total Radium	Total Radium Calculation	$0.859 \pm 0.627 (1.19)$	pCi/L	02/23/17 16:09	7440-14-4	





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30209140

QC Batch Method:

QC Batch: 248824

Analysis Description: 9315 Total Radium

EPA 9315

Associated Lab Samples: 30209140001, 30209140002

EPA 9315

METHOD BLANK: 1223623 Matrix: Water

Associated Lab Samples: 30209140001, 30209140002

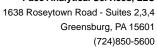
Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Analysis Method:

Radium-226 0.00454 ± 0.0688 (0.190) C:100% pCi/L 02/14/17 10:56

T:NA

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30209140

QC Batch: 248899 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30209140001, 30209140002

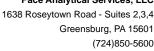
METHOD BLANK: 1224049 Matrix: Water

Associated Lab Samples: 30209140001, 30209140002

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.991 ± 0.451 (0.731) C:88% T:66% pCi/L 02/23/17 12:11

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.





QUALIFIERS

Project: Plant Hammond Pace Project No.: 30209140

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.

Date: 02/24/2017 11:28 AM

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

	Workorder: AAA0862	>	Workorder Name:	Plant Hammond	Ó	Owner Received Date:	Date:	Res	Results Requested Bv: 2/20/2017	d Bv: 2/20/20	17
Rep	Report To:		Subcontract	ct To:				Rediles	Regulected Analysis		i
Bets	Betsy McDaniel		Pace - Pittsburgh	sburgh							
Pac	Pace Analytical Atlanta		1638 Rosey	1638 Roseytown Road			ota				***************************************
110	110 Technology Parkway		Stes. 2,3,4				т ,8				dus 194 Châle
Pea	Peachtree Corners, GA 30092		Greensburg, I	g, PA 15601			77 '				terretare the educations
Pho	Phone (770)-734-4200		Phone (72	Phone (724) 850-5600			756				
			·			Preserved Containers	Market 1				wet domos
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***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.

Friday, June 17, 2016 11:01:34 AM

CHAIN OF CUSTODY RECORD / Pace Analy

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

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CLIENT ADDRESS/PHONE NUMBER/FAX NI MARER	SESS/PHON	ENLMBE	REAX		DIE KE RVA	į	╁	6		-		T	A- AMBERGIASS	S GI ASS	2- H.SO. ≤6°C	w-inn
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205-992-5417					U							in it	S-STERULE	<u> </u>	5 - NaOHZnAc, 56°C	gant.
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Sample Condition Upon Rece	ipt P	ittsb	urg	h
Pace Analytical Client Name:		Ť) QC	e,GA Project # 3020914
Courier: Fed Ex UPS USPS Clie Tracking #: 5825101 91	191		ercial	Pace Other
Custody Seal on Cooler/Box Present: yes	otin	no	Seal	s intact: yes no
Thermometer Used	Type	of Ice:	We	t Blue (None)
Cooler Temperature Observed Temp		°C	Corr	ection Factor: °C Final Temp: °C
Temp should be above freezing to 6°C				Date and Initials of parson examining
				Date and Initials of person examining contents:
Comments:	Yes	No	N/A	
Chain of Custody Present:	X-			1.
Chain of Custody Filled Out:				2.
Chain of Custody Relinquished:				3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID Matrix: \(\)	MI		_	
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:	∇	1		
Containers Intact:	\			11.
	/		V	12.
Orthophosphate field filtered			\Diamond	
Organic Samples checked for dechlorination:			\Diamond	13.
Filtered volume received for Dissolved tests All containers have been checked for preservation.			<u>/ </u>	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			15. PHLZ
exceptions: VOA, coliform, TOC, O&G, Phenolics		<u> </u>		Initial when DAT Date/time of completed DAT Preservation
		— т	V	preservative
Headspace in VOA Vials (>6mm):		\leftarrow	Δ	16.
Trip Blank Present:		7	-	17.
Trip Blank Custody Seals Present				Initial upon O and 1)
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: () Ch } Date: 1-27-17
Client Notification/ Resolution:				
Person Contacted:			Date/Т	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)

☐ A check in this box indicates that additional information has been stored in ereports.

*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.

Face Analytical

Quality Control Sample Performance Assessment

Ra-228

Test:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment Sample Collection Date: Sample LO	Sample MS I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: Spike Concentration (pCl/mL): Spike Volume Used in MS (mL): Spike Volume Used in MS (mL):
, 5	9
JLW 2/13/2017 33965 DW	1224049 0.991 0.414 0.731
Analyst: Date: Worklist: Matrix:	MB Sample ID MB concentration: M/B Counting Uncertainty: MB MB MB CC:
	Method Blank Assessment

Laboratory Control Sample Assessment	LCSD (Y or N)?	z
	1.0533965	LCSD33965
Count Date:	2/23/2017	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.228	
Volume Used (mL):	0,20	
Aliquot Volume (L, g, F):	0.810	
Target Conc. (pCi/L, g, F):	6.231	
Uncertainty (Calculated):	0.449	
Result (pCi/L, g, F):	8.243	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.828	
Numerical Performance Indicator:	4.19	
Percent Recovery:	132.29%	
Status vs Numerical Indicator:	ΑN	
Status vs Recovery:	Pass	

Sample Result Counting Uncertainty (pCifl., g. F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCifl., g. F):
Sample Matrix Spike Duplicate Result.

Sample Result

Spike uncertainty (calculated)

MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F):

MS Aliquot (L, g, F):

0.414 0.731 4.69 N/A

MB Numerical Performance Indicator: MB Status vs Numerical Indicator:

MB Status vs. MDC

MSD Numerical Performance Indicator:

MS Percent Recovery: MSD Percent Recovery:

MS Numerical Performance Indicator:

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

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 MS I.D. Sample Matrix Spike Result Matrix Spike Result Counting Uncertainty (pCifl., g, F): Sample Matrix Spike Duplicate Result Matrix Spike Duplicate Result Counting Uncertainty (pCifl., g, F): Duplicate Numerical Performance Indicator: MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:
	Enter Duplicate sample IDs if other than LCS/LCSD in the space below. 30209800005500005
	Sample I.D.: 30209600005
Dicate Sample Assessment	Sample I.D.: 30209600005 Sample Result (pCi/L, g, F): 1.345 Sample Result (pCi/L, g, F): 0.471 Sample Duplicate Result (pCi/L, g, F): 0.471 Sample Duplicate Result (pCi/L, g, F): 0.355 Are sample Duplicate Result (pCi/L, g, F): 0.355 Are sample Duplicate Results below MDC? See Below ## Duplicate Numerical Performance Indicator: 1.566 Duplicate Status vs Numerical Indicator: Fall***

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.

Quality Control Sample Performance Assessment

Face Analytical"

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Ra-226 LAL 2/10/2017 33939 DW Test: Analyst: Date: Worklist: Matrix:

1223623 0.005 0.069 0.190 0.13	
MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator: MB Status vs Numerical Indicator:	MR Status vs MOC.

Method Blank Assessment

Sample Matrix Spike Control Assessment Sample LD. Sample LD. Sample MS LD. Sample MS LD. Sample MS LD. Spike Volume Used in MS (mL): Spike Volume Used in MS (mL): Spike Volume Used in MS (mL): MS Target Conc.(pCi/L, g, F): MSD Target Conc.(pCi/L, g, F): MSD Target Conc. (pCi/L, g, F): MSD Target Conc. (pCi/L, g, F): Spike uncertainty (ci/L, g, F): Spike uncertainty (ci/L, g, F): Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result MSD Numerical Performance Indicator: MSD Numerical Performance Indicator: MSD Numerical Performance Indicator: MSD Status vs Numerical Indicator: MSS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSS Status vs Numerical Indicator: MSS Status vs Numerical Indicator: MSS Status vs Numerical Indicator: MS Status vs Numerical Indicator: MSS MS MSS MS MSS MSS MSS MSS MSS MSS M
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LCSD33939

Count Date:

Laboratory Control Sample Assessment

Spike I.D.

Spike Concentration (pCI/mL): Volume Used (mL): Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated):

iD (Y or N)7 LCS33939 2/15/2017 16-026 44.669 0.10 0.502 8.890 0.418 7.727 0.653

Matrix Spike/Matrix Spike Duplicate Sample Assessment			Duplicate Sample Assessment
MSD Status vs Reco		Pass	Status vs Recovery:
MS Status vs Reco	-	ΑN	Status vs Numerical Indicator:
MSD Status vs Numerical Indi		86.93%	Percent Recovery:

Result (pCi/L, g, F):
LCS/LCSD Counting Uncertainty (pCi/L, g, F):
'Numerical Performance Indicator:

Ë											إ
	Enter Duplicate	sample IDs if	other than	LCS/LCSD in the	space below.			30209600005	30209600005DUP	ζ	
	30209600005	30209600005DUP	0.111	0.096	0.064	960.0	See Below ##	0.680	54.03%	ΝΆ	Fail***
ite Sample Assessment	Sample I.D.:	Duplicate Sample I.D. 3020960005DUP	Sample Result (pCi/L, g, F):	Sample Result Counting Uncertainty (pCl/L, g, F):	Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	Are sample and/or duplicate results below MDC?	Duplicate Numerical Performance Indicator:	Duplicate RPD:	Duplicate Status vs Numerical Indicator:	Duplicate Status vs RPD:

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 and below the MDC.

Comments:

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

1 of 1



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: AAA0909 February 07, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

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All test results relate only to the samples analyzed.



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

February 07, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-9	AAA0909-01	Ground Water	01/26/17 09:25	01/27/17 12:25
HGWC-10	AAA0909-02	Ground Water	01/26/17 09:50	01/27/17 12:25
HGWC-11	AAA0909-03	Ground Water	01/26/17 12:15	01/27/17 12:25
HGWC-12	AAA0909-04	Ground Water	01/26/17 09:43	01/27/17 12:25
HGWC-13	AAA0909-05	Ground Water	01/26/17 10:52	01/27/17 12:25
HGWC-14	AAA0909-06	Ground Water	01/26/17 13:15	01/27/17 12:25
HGWC-15	AAA0909-07	Ground Water	01/26/17 14:30	01/27/17 12:25
HGWC-16	AAA0909-08	Ground Water	01/26/17 11:07	01/27/17 12:25
HGWC-17	AAA0909-09	Ground Water	01/26/17 13:20	01/27/17 12:25
HGWC-18	AAA0909-10	Ground Water	01/26/17 15:12	01/27/17 12:25
Dup-1	AAA0909-11	Ground Water	01/26/17 00:00	01/27/17 12:25
Dup-2	AAA0909-12	Ground Water	01/26/17 00:00	01/27/17 12:25
FB-1	AAA0909-13	Water	01/26/17 13:35	01/27/17 12:25
FERB-1	AAA0909-14	Water	01/26/17 13:40	01/27/17 12:25
FB-2	AAA0909-15	Water	01/26/17 14:05	01/27/17 12:25
FERB-2	AAA0909-16	Water	01/26/17 14:10	01/27/17 12:25



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

Report No.: AAA0909

Client ID: HGWC-9

Date/Time Sampled: 1/26/2017 9:25:00AM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-01

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	869	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	170	12	0.65	mg/L	EPA 300.0		50	01/31/17 09:35	02/02/17 08:17	7010769	RLC
Fluoride	0.004	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 12:31	7010769	RLC
Sulfate	270	50	4.6	mg/L	EPA 300.0		50	01/31/17 09:35	02/02/17 08:17	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Barium	0.142	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Boron	1.87	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Calcium	175	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 18:48	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Molybdenum	0.0234	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Lithium	0.0042	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 18:42	7020013	KLH
Mercury	0.00004	0.00050	0.000041	mg/L	EPA 7470A	J	1	01/31/17 11:00	01/31/17 15:40	7010766	MTC



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

Report No.: AAA0909

Client ID: HGWC-10

Date/Time Sampled: 1/26/2017 9:50:00AM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	368	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	7.0	0.25	0.01	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 12:52	7010769	RLC
Fluoride	0.29	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 12:52	7010769	RLC
Sulfate	90	10	0.92	mg/L	EPA 300.0		10	01/31/17 09:35	02/02/17 08:39	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Barium	0.0538	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/03/17 13:48	7020013	KLH
Boron	0.108	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Calcium	82.6	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 19:32	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Selenium	0.0041	0.0100	0.0010	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:27	7020013	KLH
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	01/31/17 11:00	01/31/17 15:42	7010766	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0909

Client ID: HGWC-11

Date/Time Sampled: 1/26/2017 12:15:00PM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-03

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	571	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	90	2.5	0.13	mg/L	EPA 300.0		10	01/31/17 09:35	02/02/17 09:01	7010769	RLC
Fluoride	0.27	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 13:56	7010769	RLC
Sulfate	230	10	0.92	mg/L	EPA 300.0		10	01/31/17 09:35	02/02/17 09:01	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Barium	0.0696	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/03/17 13:54	7020013	KLH
Boron	2.23	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Calcium	121	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 19:44	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Cobalt	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Molybdenum	0.0277	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Selenium	0.0062	0.0100	0.0010	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:38	7020013	KLH
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	01/31/17 11:00	01/31/17 15:44	7010766	MTC



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

Report No.: AAA0909

Client ID: HGWC-12

Date/Time Sampled: 1/26/2017 9:43:00AM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-04

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	846	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	160	5.0	0.26	mg/L	EPA 300.0		20	01/31/17 09:35	02/02/17 09:24	7010769	RLC
Fluoride	0.12	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 14:17	7010769	RLC
Sulfate	260	20	1.8	mg/L	EPA 300.0		20	01/31/17 09:35	02/02/17 09:24	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Barium	0.127	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/03/17 14:00	7020013	KLH
Boron	3.07	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Calcium	172	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 19:55	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Cobalt	0.0016	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Molybdenum	0.0484	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Lithium	0.0099	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 19:50	7020013	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	01/31/17 11:00	01/31/17 15:47	7010766	MTC



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

Report No.: AAA0909

Client ID: HGWC-13

Date/Time Sampled: 1/26/2017 10:52:00AM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	411	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	70	1.2	0.06	mg/L	EPA 300.0		5	01/31/17 09:35	02/02/17 09:46	7010769	RLC
Fluoride	0.68	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 14:38	7010769	RLC
Sulfate	83	5.0	0.46	mg/L	EPA 300.0		5	01/31/17 09:35	02/02/17 09:46	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Arsenic	0.424	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Barium	0.0738	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/01/17 15:35	02/03/17 14:05	7020013	KLH
Boron	2.45	0.0400	0.0064	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Calcium	77.9	25.0	1.55	mg/L	EPA 6020B	B-01	50	02/01/17 15:35	02/02/17 20:07	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Cobalt	0.0024	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Molybdenum	0.0410	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Lithium	0.0342	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:01	7020013	KLH
Mercury	0.00004	0.00050	0.000041	mg/L	EPA 7470A	J	1	01/31/17 11:00	01/31/17 15:49	7010766	MTC



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

Report No.: AAA0909

Client ID: HGWC-14

Date/Time Sampled: 1/26/2017 1:15:00PM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-06

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3080	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	640	25	1.3	mg/L	EPA 300.0		100	01/31/17 09:35	02/04/17 04:18	7010769	RLC
Fluoride	0.13	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 14:59	7010769	RLC
Sulfate	1400	100	9.2	mg/L	EPA 300.0		100	01/31/17 09:35	02/04/17 04:18	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Arsenic	0.0089	0.0050	0.0016	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Barium	0.0238	0.0100	0.0004	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Beryllium	0.0005	0.0030	0.00008	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/03/17 14:11	7020013	KLH
Boron	19.2	2.00	0.321	mg/L	EPA 6020B		50	02/01/17 15:35	02/02/17 20:37	7020013	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Calcium	558	50.0	3.11	mg/L	EPA 6020B	B-01	100	02/01/17 15:35	02/03/17 14:17	7020013	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Cobalt	0.0294	0.0100	0.0005	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Lead	0.0020	0.0050	0.0001	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Selenium	0.0214	0.0100	0.0010	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Thallium	0.0003	0.0010	0.0002	mg/L	EPA 6020B	J	1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/01/17 15:35	02/02/17 20:12	7020013	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:37	7020032	MTC



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

Report No.: AAA0909

Client ID: HGWC-15

Date/Time Sampled: 1/26/2017 2:30:00PM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-07

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1260	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	260	5.0	0.26	mg/L	EPA 300.0		20	01/31/17 09:35	02/04/17 04:39	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 15:21	7010769	RLC
Sulfate	490	20	1.8	mg/L	EPA 300.0		20	01/31/17 09:35	02/04/17 04:39	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Barium	0.0287	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:53	7010760	CSW
Boron	2.31	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:39	7010760	CSW
Cadmium	0.0013	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Calcium	212	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:39	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Cobalt	0.0550	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:34	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:53	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:39	7020032	MTC



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

Report No.: AAA0909

Client ID: HGWC-16

Date/Time Sampled: 1/26/2017 11:07:00AM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-08

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	608	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	41	2.5	0.13	mg/L	EPA 300.0		10	01/31/17 09:35	02/04/17 05:01	7010769	RLC
Fluoride	0.02	0.30	0.004	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 15:42	7010769	RLC
Sulfate	250	10	0.92	mg/L	EPA 300.0		10	01/31/17 09:35	02/04/17 05:01	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Barium	0.105	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 15:59	7010760	CSW
Boron	1.19	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Calcium	139	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 20:51	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:45	7010760	CSW
Lithium	0.0028	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 15:59	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:41	7020032	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0909

Client ID: HGWC-17

Date/Time Sampled: 1/26/2017 1:20:00PM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-09

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1000	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	99	6.2	0.32	mg/L	EPA 300.0		25	01/31/17 09:35	02/04/17 06:48	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 17:28	7010769	RLC
Sulfate	440	25	2.3	mg/L	EPA 300.0		25	01/31/17 09:35	02/04/17 06:48	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Barium	0.0229	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:05	7010760	CSW
Boron	5.78	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:02	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Calcium	198	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:02	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Cobalt	0.0154	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 20:57	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:05	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:44	7020032	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0909

Client ID: HGWC-18

Date/Time Sampled: 1/26/2017 3:12:00PM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-10

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1950	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	340	25	1.3	mg/L	EPA 300.0		100	01/31/17 09:35	02/04/17 07:09	7010769	RLC
Fluoride	0.71	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 17:49	7010769	RLC
Sulfate	970	100	9.2	mg/L	EPA 300.0		100	01/31/17 09:35	02/04/17 07:09	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Arsenic	0.0068	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Barium	0.0293	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Beryllium	0.0034	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:11	7010760	CSW
Boron	9.17	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:14	7010760	CSW
Cadmium	0.0025	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Calcium	394	50.0	3.11	mg/L	EPA 6020B		100	01/31/17 10:00	02/02/17 16:07	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Cobalt	0.195	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Lead	0.0013	0.0050	0.0001	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Selenium	0.0385	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:08	7010760	CSW
Lithium	0.0136	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 16:11	7010760	CSW
Mercury	0.00008	0.00050	0.000041	mg/L	EPA 7470A	J	1	02/02/17 12:05	02/02/17 16:51	7020032	MTC



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

Report No.: AAA0909

Client ID: Dup-1

Date/Time Sampled: 1/26/2017 12:00:00AM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-11

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	362	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	7.6	0.25	0.01	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 18:32	7010769	RLC
Fluoride	0.30	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 18:32	7010769	RLC
Sulfate	89	5.0	0.46	mg/L	EPA 300.0		5	01/31/17 09:35	02/04/17 07:30	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Barium	0.0484	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:18	7010760	CSW
Boron	0.0976	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Calcium	81.8	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:25	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Selenium	0.0029	0.0100	0.0010	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:19	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:18	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:53	7020032	MTC



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

Report No.: AAA0909

Client ID: Dup-2

Date/Time Sampled: 1/26/2017 12:00:00AM

Matrix: Ground Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-12

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	389	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	71	1.2	0.06	mg/L	EPA 300.0		5	01/31/17 09:35	02/04/17 07:51	7010769	RLC
Fluoride	0.60	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 18:53	7010769	RLC
Sulfate	84	5.0	0.46	mg/L	EPA 300.0		5	01/31/17 09:35	02/04/17 07:51	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Arsenic	0.408	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Barium	0.0701	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:24	7010760	CSW
Boron	3.00	2.00	0.321	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:48	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Calcium	87.8	25.0	1.55	mg/L	EPA 6020B		50	01/31/17 10:00	01/31/17 21:48	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Molybdenum	0.0423	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 21:42	7010760	CSW
Lithium	0.0333	0.0500	0.0021	mg/L	EPA 6020B	J	1	01/31/17 10:00	02/01/17 16:24	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:56	7020032	MTC



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

Report No.: AAA0909

Client ID: FB-1

Date/Time Sampled: 1/26/2017 1:35:00PM

Matrix: Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-13

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	17	25	10	mg/L	SM 2540 C	J	1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:14	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 19:14	7010769	RLC
Sulfate	0.12	1.0	0.09	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:14	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:30	7010760	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 21:54	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:30	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 16:58	7020032	MTC



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

Report No.: AAA0909

Client ID: FERB-1

Date/Time Sampled: 1/26/2017 1:40:00PM

Matrix: Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-14

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	28	25	10	mg/L	SM 2540 C		1	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:35	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 19:35	7010769	RLC
Sulfate	0.10	1.0	0.09	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:35	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:36	7010760	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Calcium	0.0401	0.500	0.0311	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:00	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:36	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 17:00	7020032	MTC



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

Report No.: AAA0909

Client ID: FB-2

Date/Time Sampled: 1/26/2017 2:05:00PM

Matrix: Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-15

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	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 19:56	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 19:56	7010769	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 19:56	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:42	7010760	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:05	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/01/17 16:42	7010760	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 17:03	7020032	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0909

Client ID: FERB-2

Date/Time Sampled: 1/26/2017 2:10:00PM

Matrix: Water

February 07, 2017

Project: CCR Event

Lab Number ID: AAA0909-16

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	01/31/17 17:51	01/31/17 17:51	7010778	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	01/31/17 09:35	01/31/17 20:18	7010769	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 20:18	7010769	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	01/31/17 09:35	01/31/17 20:18	7010769	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Barium	0.0005	0.0100	0.0004	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Beryllium	ND	0.0030	80000.0	mg/L	EPA 6020B		1	01/31/17 10:00	02/02/17 16:12	7010760	KLH
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Cadmium	0.00008	0.0010	0.00007	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Calcium	0.0351	0.500	0.0311	mg/L	EPA 6020B	J	1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	01/31/17 10:00	01/31/17 22:11	7010760	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	01/31/17 10:00	02/02/17 16:12	7010760	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/02/17 12:05	02/02/17 17:05	7020032	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0909

February 07, 2017

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010778 - SM 2540 C											
Blank (7010778-BLK1)						Prepar	ed & Anal	yzed: 01/3	1/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7010778-BS1)						Prepar	ed & Anal	yzed: 01/3	1/17		
Total Dissolved Solids	407	25	10	mg/L	400.00		102	84-108			
Duplicate (7010778-DUP1)		Soi	ırce: AAA0	909-04		Prepar	ed & Anal	yzed: 01/3	1/17		
Total Dissolved Solids	884	25	10	mg/L		846			4	10	
Duplicate (7010778-DUP2)		Soi	ırce: AAA0	909-14		Prepar	ed & Anal	yzed: 01/3	1/17		
Total Dissolved Solids	21	25	10	mg/L		28			29	10	QR-03, J



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0909

February 07, 2017

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010769 - EPA 300.0											
Blank (7010769-BLK1)						Prepare	ed & Analy	yzed: 01/31	1/17		
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 (7010769-BS1)						Prepare	ed & Analy	yzed: 01/31	1/17		
Chloride	10.4	0.25	0.01	mg/L	10.010		104	90-110			
Fluoride	10.4	0.30	0.004	mg/L	10.020		104	90-110			
Sulfate	10.3	1.0	0.09	mg/L	10.020		103	90-110			
Matrix Spike (7010769-MS1)		Sou	urce: AAA09	909-02		Prepare	ed & Analy	yzed: 01/3°	1/17		
Chloride	16.6	0.25	0.01	mg/L	10.010	6.98	96	90-110			
Fluoride	11.1	0.30	0.004	mg/L	10.020	0.29	108	90-110			
Sulfate	82.2	1.0	0.09	mg/L	10.020	80.8	14	90-110			QM-02
Matrix Spike (7010769-MS2)		Sou	urce: AAA09	909-10		Prepare	ed & Analy	yzed: 01/31	1/17		
Chloride	147	0.25	0.01	mg/L	10.010	153	NR	90-110			QM-02
Fluoride	14.4	0.30	0.004	mg/L	10.020	0.71	137	90-110			QM-05
Sulfate	413	1.0	0.09	mg/L	10.020	438	NR	90-110			QM-02
Matrix Spike Dup (7010769-MSD1)		Sou	urce: AAA09	909-02		Prepare	ed & Analy	yzed: 01/31	1/17		
Chloride	16.7	0.25	0.01	mg/L	10.010	6.98	97	90-110	0.08	15	
Fluoride	11.2	0.30	0.004	mg/L	10.020	0.29	109	90-110	0.3	15	
Sulfate	82.3	1.0	0.09	mg/L	10.020	80.8	15	90-110	0.1	15	QM-02



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Blank (7010760-BLK1)						Prepare	ed & Analy	/zed: 01/31	1/17		
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (7010760-BS1)						Prepare	ed & Analy	/zed: 01/31	1/17		
Antimony	0.104	0.0030	0.0008	mg/L	0.10000		104	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.0974	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000		104	80-120			
Boron	1.06	0.0400	0.0064	mg/L	1.0000		106	80-120			
Cadmium	0.0997	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	1.06	0.500	0.0311	mg/L	1.0000		106	80-120			
Chromium	0.102	0.0100	0.0009	mg/L	0.10000		102	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.101	0.0250	0.0005	mg/L	0.10000		101	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000		103	80-120			
Nickel	0.103	0.0100	0.0006	mg/L	0.10000		103	80-120			
Selenium	0.100	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	0.100	0.0010	0.0002	mg/L	0.10000		100	80-120			
Vanadium	0.101	0.0100	0.0071	mg/L	0.10000		101	80-120			
Zinc	0.107	0.0100	0.0021	mg/L	0.10000		107	80-120			
Lithium	0.0962	0.0500	0.0021	mg/L	0.10000		96	80-120			



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Matrix Spike (7010760-MS1)		Soi	ırce: AAA09	09-08		Prepar	ed & Analy	/zed: 01/31	1/17		
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	ND	106	75-125			
Arsenic	0.109	0.0050	0.0016	mg/L	0.10000	ND	109	75-125			
Barium	0.209	0.0100	0.0004	mg/L	0.10000	0.105	104	75-125			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000	ND	104	75-125			
Boron	2.78	2.00	0.321	mg/L	1.0000	1.19	159	75-125			QM-02
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	145	25.0	1.55	mg/L	1.0000	139	618	75-125			QM-02
Chromium	0.106	0.0100	0.0009	mg/L	0.10000	ND	106	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.102	0.0250	0.0005	mg/L	0.10000	ND	102	75-125			
Lead	0.0985	0.0050	0.0001	mg/L	0.10000	0.0001	98	75-125			
Molybdenum	0.108	0.0100	0.0017	mg/L	0.10000	ND	108	75-125			
Nickel	0.0994	0.0100	0.0006	mg/L	0.10000	ND	99	75-125			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000	ND	103	75-125			
Silver	0.0976	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.0974	0.0010	0.0002	mg/L	0.10000	ND	97	75-125			
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0025	102	75-125			
Lithium	0.0978	0.0500	0.0021	mg/L	0.10000	0.0028	95	75-125			
Matrix Spike Dup (7010760-MSD1)		So	ırce: AAA09	09-08		Prenar	ed & Analy	/zed: 01/31	1/17		
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	ND	103	75-125	2	20	
Arsenic	0.108	0.0050	0.0016	mg/L	0.10000	ND	108	75-125	1	20	
Barium	0.202	0.0100	0.0004	mg/L	0.10000	0.105	97	75-125	3	20	
Beryllium	0.106	0.0030	0.00008	mg/L	0.10000	ND	106	75-125	2	20	
Boron	2.71	2.00	0.321	mg/L	1.0000	1.19	152	75-125	3	20	QM-02
Cadmium	0.0983	0.0010	0.00007	mg/L	0.10000	ND	98	75-125	3	20	QIVI 02
Calcium	142	25.0	1.55	mg/L	1.0000	139	298	75-125	2	20	QM-02
Chromium	0.0999	0.0100	0.0009	mg/L	0.10000	ND	100	75-125	6	20	Q 02
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	2	20	
Copper	0.0945	0.0250	0.0005	mg/L	0.10000	ND	95	75-125	7	20	
Lead	0.0990	0.0050	0.0001	mg/L	0.10000	0.0001	99	75-125	0.5	20	
Molybdenum	0.107	0.0100	0.0017	mg/L	0.10000	ND	107	75-125 75-125	0.6	20	
Nickel	0.0991	0.0100	0.0006	_	0.10000	ND	99	75-125 75-125	0.3	20	
	0.105	0.0100	0.0000	mg/L	0.10000			75-125 75-125	2	20	
Selenium Silver	0.103	0.0100	0.0010	mg/L	0.10000	ND ND	105 97	75-125 75-125	0.3	20 20	
	0.0974	0.0100	0.0005	mg/L							
Thallium	0.0973			mg/L	0.10000	ND	97	75-125	0.1	20	
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000	ND	102	75-125	4	20	
Zinc	0.100	0.0100 0.0500	0.0021	mg/L	0.10000	0.0025	97	75-125	5	20	
Lithium	0.100	0.0500	0.0021	mg/L	0.10000	0.0028	97	75-125	2	20	



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

Report No.: AAA0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010760 - EPA 3005A											
Post Spike (7010760-PS1)		Soi	urce: AAA09	09-08		Prepare	ed & Analy	yzed: 01/3	1/17		
Antimony	92.7			ug/L	100.00	0.0220	93	80-120			
Arsenic	107			ug/L	100.00	-0.219	107	80-120			
Barium	196			ug/L	100.00	105	91	80-120			
Beryllium	105			ug/L	100.00	0.0100	105	80-120			
Boron	2660			ug/L	1000.0	1190	148	80-120			QM-02
Cadmium	100			ug/L	100.00	0.0104	100	80-120			
Calcium	143000			ug/L	1000.0	139000	377	80-120			QM-02
Chromium	107			ug/L	100.00	0.148	107	80-120			
Cobalt	102			ug/L	100.00	0.123	102	80-120			
Copper	97.5			ug/L	100.00	0.247	97	80-120			
Lead	94.5			ug/L	100.00	0.122	94	80-120			
Molybdenum	106			ug/L	100.00	0.0875	106	80-120			
Nickel	99.0			ug/L	100.00	0.284	99	80-120			
Selenium	106			ug/L	100.00	0.338	106	80-120			
Silver	93.9			ug/L	100.00	0.0015	94	80-120			
Thallium	93.8			ug/L	100.00	0.0007	94	80-120			
Vanadium	108			ug/L	100.00	-2.17	108	80-120			
Zinc	104			ug/L	100.00	2.53	101	80-120			
Lithium	100			ug/L	100.00	2.80	98	80-120			
Batch 7010766 - EPA 7470A											
Blank (7010766-BLK1)						Prepare	ed & Analy	yzed: 01/3	1/17		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7010766-BS1)						Prepare	ed & Analy	yzed: 01/3	1/17		
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			



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

Lithium

Attention: Mr. Joju Abraham

ND

0.0500

0.0021

Report No.: AAA0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7010766 - EPA 7470A											
Matrix Spike (7010766-MS1)		Sou	urce: AAA07	92-01		Prepare	ed & Analy	yzed: 01/31	1/17		
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7010766-MSD1)		Sou	urce: AAA07	92-01		Prepare	ed & Anal	yzed: 01/31	1/17		
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3	ND.	98	75-125	4	20	
Post Spike (7010766-PS1)		Soi	urce: AAA07	92-01		Prepare	ed & Analy	yzed: 01/31	1/17		
Mercury	1.66			ug/L	1.6667	0.0236	98	80-120			
Dotah 7020042 EDA 2005A											
Batch 7020013 - EPA 3005A											
Blank (7020013-BLK1)						Prepare	ed: 02/01/	17 Analyz	ed: 02/02/	/17	
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	0.125	0.500	0.0311	mg/L							J
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	0.0044	0.0100	0.0021	mg/L							J

mg/L



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAA0909

February 07, 2017

Metals, Total - Quality Control

Prepared: 02/01/17 Analyzed: 02/02/17	
Antimony 0.110 0.0030 0.0008 mg/L 0.10000 110 80-120 Arsenic 0.107 0.0050 0.0016 mg/L 0.10000 107 80-120 Barium 0.101 0.0100 0.0004 mg/L 0.10000 101 80-120 Beryllium 0.106 0.0030 0.00008 mg/L 0.10000 106 80-120 Boron 1.07 0.0400 0.0064 mg/L 1.0000 107 80-120 Cadmium 0.103 0.0010 0.00007 mg/L 0.10000 103 80-120 Calcium 1.12 0.500 0.0311 mg/L 1.0000 112 80-120 Chromium 0.118 0.0100 0.0009 mg/L 0.10000 118 80-120 Cobalt 0.109 0.0100 0.0005 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80	
Antimony 0.110 0.0030 0.0008 mg/L 0.10000 110 80-120 Arsenic 0.107 0.0050 0.0016 mg/L 0.10000 107 80-120 Barium 0.101 0.0100 0.0004 mg/L 0.10000 101 80-120 Beryllium 0.106 0.0030 0.00008 mg/L 0.10000 106 80-120 Boron 1.07 0.0400 0.0064 mg/L 1.0000 107 80-120 Cadmium 0.103 0.0010 0.00007 mg/L 0.10000 103 80-120 Calcium 1.12 0.500 0.0311 mg/L 1.0000 112 80-120 Chromium 0.118 0.0100 0.0009 mg/L 0.10000 118 80-120 Cobalt 0.109 0.0100 0.0005 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80	
Barium 0.101 0.0100 0.0004 mg/L 0.10000 101 80-120 Beryllium 0.106 0.0030 0.00008 mg/L 0.10000 106 80-120 Boron 1.07 0.0400 0.0064 mg/L 1.0000 107 80-120 Cadmium 0.103 0.0010 0.00007 mg/L 0.10000 103 80-120 Calcium 1.12 0.500 0.0311 mg/L 1.0000 112 80-120 Chromium 0.118 0.0100 0.0009 mg/L 0.10000 118 80-120 Cobalt 0.109 0.0100 0.0005 mg/L 0.10000 109 80-120 Copper 0.104 0.0050 0.0001 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80-120	
Beryllium 0.106 0.0030 0.00008 mg/L 0.10000 106 80-120 Boron 1.07 0.0400 0.0064 mg/L 1.0000 107 80-120 Cadmium 0.103 0.0010 0.00007 mg/L 0.10000 103 80-120 Calcium 1.12 0.500 0.0311 mg/L 1.0000 112 80-120 Chromium 0.118 0.0100 0.0009 mg/L 0.10000 118 80-120 Cobalt 0.109 0.0100 0.0005 mg/L 0.10000 109 80-120 Copper 0.104 0.0050 0.0001 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80-120	
Boron 1.07 0.0400 0.0064 mg/L 1.0000 107 80-120 Cadmium 0.103 0.0010 0.00007 mg/L 0.10000 103 80-120 Calcium 1.12 0.500 0.0311 mg/L 1.0000 112 80-120 Chromium 0.118 0.0100 0.0009 mg/L 0.10000 118 80-120 Cobalt 0.109 0.0100 0.0005 mg/L 0.10000 109 80-120 Copper 0.104 0.0050 0.0001 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80-120	
Cadmium 0.103 0.0010 0.00007 mg/L 0.10000 103 80-120 Calcium 1.12 0.500 0.0311 mg/L 1.0000 112 80-120 Chromium 0.118 0.0100 0.0009 mg/L 0.10000 118 80-120 Cobalt 0.109 0.0100 0.0005 mg/L 0.10000 109 80-120 Copper 0.109 0.0250 0.0005 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80-120	
Calcium 1.12 0.500 0.0311 mg/L 1.0000 112 80-120 Chromium 0.118 0.0100 0.0009 mg/L 0.10000 118 80-120 Cobalt 0.109 0.0100 0.0005 mg/L 0.10000 109 80-120 Copper 0.109 0.0250 0.0005 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80-120	
Chromium 0.118 0.0100 0.0009 mg/L 0.10000 118 80-120 Cobalt 0.109 0.0100 0.0005 mg/L 0.10000 109 80-120 Copper 0.109 0.0250 0.0005 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80-120	
Cobalt 0.109 0.0100 0.0005 mg/L 0.10000 109 80-120 Copper 0.109 0.0250 0.0005 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80-120	
Copper 0.109 0.0250 0.0005 mg/L 0.10000 109 80-120 Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80-120	
Lead 0.104 0.0050 0.0001 mg/L 0.10000 104 80-120	
Molybdenum 0.106 0.0100 0.0017 mg/L 0.10000 106 80-120	
,	
Nickel 0.112 0.0100 0.0006 mg/L 0.10000 112 80-120	
Selenium 0.113 0.0100 0.0010 mg/L 0.10000 113 80-120	
Silver 0.104 0.0100 0.0005 mg/L 0.10000 104 80-120	
Thallium 0.101 0.0010 0.0002 mg/L 0.10000 101 80-120	
Vanadium 0.115 0.0100 0.0071 mg/L 0.10000 115 80-120	
Zinc 0.114 0.0100 0.0021 mg/L 0.10000 114 80-120	
Lithium 0.104 0.0500 0.0021 mg/L 0.10000 104 80-120	
Matrix Spike (7020013-MS1) Source: AAA0909-01 Prepared: 02/01/17 Analyzed: 02/02/17	
Antimony 0.115 0.0030 0.0008 mg/L 0.10000 ND 115 75-125	
Arsenic 0.116 0.0050 0.0016 mg/L 0.10000 ND 116 75-125	
Barium 0.255 0.0100 0.0004 mg/L 0.10000 0.142 113 75-125	
Beryllium 0.0906 0.0030 0.00008 mg/L 0.10000 ND 91 75-125	
Boron 2.88 0.0400 0.0064 mg/L 1.0000 1.87 102 75-125	
Cadmium 0.100 0.0010 0.00007 mg/L 0.10000 ND 100 75-125	
Calcium 184 25.0 1.55 mg/L 1.0000 175 853 75-125	QM-02
Chromium 0.117 0.0100 0.0009 mg/L 0.10000 ND 117 75-125	
Cobalt 0.111 0.0100 0.0005 mg/L 0.10000 0.0006 110 75-125	
Copper 0.104 0.0250 0.0005 mg/L 0.10000 ND 104 75-125	
Lead 0.0977 0.0050 0.0001 mg/L 0.10000 0.0001 98 75-125	
Molybdenum 0.141 0.0100 0.0017 mg/L 0.10000 0.0234 118 75-125	
Nickel 0.112 0.0100 0.0006 mg/L 0.10000 0.0009 111 75-125	
Selenium 0.112 0.0100 0.0010 mg/L 0.10000 ND 112 75-125	
Silver 0.0985 0.0100 0.0005 mg/L 0.10000 ND 98 75-125	
Thallium 0.0988 0.0010 0.0002 mg/L 0.10000 ND 99 75-125	
Vanadium 0.119 0.0100 0.0071 mg/L 0.10000 ND 119 75-125	
Zinc 0.110 0.0100 0.0021 mg/L 0.10000 0.0055 104 75-125	
Lithium 0.0974 0.0500 0.0021 mg/L 0.10000 0.0042 93 75-125	



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

February 07, 2017

Report No.: AAA0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020013 - EPA 3005A											
Matrix Spike Dup (7020013-MSD1)		Sou	ırce: AAA09	09-01		Prepar	ed: 02/01/	17 Analyz	ed: 02/02/	/17	
Antimony	0.112	0.0030	0.0008	mg/L	0.10000	ND	112	75-125	3	20	
Arsenic	0.116	0.0050	0.0016	mg/L	0.10000	ND	116	75-125	0.5	20	
Barium	0.242	0.0100	0.0004	mg/L	0.10000	0.142	101	75-125	5	20	
Beryllium	0.0921	0.0030	0.00008	mg/L	0.10000	ND	92	75-125	2	20	
Boron	2.91	0.0400	0.0064	mg/L	1.0000	1.87	104	75-125	0.7	20	
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125	1	20	
Calcium	189	25.0	1.55	mg/L	1.0000	175	NR	75-125	3	20	QM-02
Chromium	0.115	0.0100	0.0009	mg/L	0.10000	ND	115	75-125	2	20	
Cobalt	0.110	0.0100	0.0005	mg/L	0.10000	0.0006	109	75-125	1	20	
Copper	0.102	0.0250	0.0005	mg/L	0.10000	ND	102	75-125	1	20	
Lead	0.0986	0.0050	0.0001	mg/L	0.10000	0.0001	98	75-125	0.9	20	
Molybdenum	0.132	0.0100	0.0017	mg/L	0.10000	0.0234	108	75-125	7	20	
Nickel	0.108	0.0100	0.0006	mg/L	0.10000	0.0009	107	75-125	4	20	
Selenium	0.115	0.0100	0.0010	mg/L	0.10000	ND	115	75-125	2	20	
Silver	0.0962	0.0100	0.0005	mg/L	0.10000	ND	96	75-125	2	20	
Thallium	0.0985	0.0010	0.0002	mg/L	0.10000	ND	98	75-125	0.3	20	
Vanadium	0.116	0.0100	0.0071	mg/L	0.10000	ND	116	75-125	2	20	
Zinc	0.111	0.0100	0.0021	mg/L	0.10000	0.0055	105	75-125	0.7	20	
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	0.0042	97	75-125	4	20	
Post Spike (7020013-PS1)		Sou	ırce: AAA09	09-01		Prepar	ed: 02/01/	17 Analyz	ed: 02/02/	/17	
Antimony	104			ug/L	100.00	0.572	103	80-120			
Arsenic	118			ug/L	100.00	0.952	117	80-120			
Barium	249			ug/L	100.00	142	107	80-120			
Beryllium	89.5			ug/L	100.00	0.0129	89	80-120			
Boron	2800			ug/L	1000.0	1870	93	80-120			
Cadmium	101			ug/L	100.00	0.0242	101	80-120			
Calcium	180000			ug/L	1000.0	175000	432	80-120			QM-02
Chromium	119			ug/L	100.00	0.0861	118	80-120			
Cobalt	109			ug/L	100.00	0.595	108	80-120			
Copper	105			ug/L	100.00	0.484	105	80-120			
Lead	98.5			ug/L	100.00	0.122	98	80-120			
Molybdenum	134			ug/L	100.00	23.4	110	80-120			
Nickel	109			ug/L	100.00	0.947	109	80-120			
Selenium	117			ug/L	100.00	0.426	116	80-120			
Silver	94.8			ug/L	100.00	0.0211	95	80-120			
Thallium	100			ug/L	100.00	0.0533	100	80-120			
Vanadium	121			ug/L	100.00	-0.716	121	80-120			
Zinc	111			ug/L	100.00	5.50	105	80-120			
Lithium	98.7			ug/L	100.00	4.24	94	80-120			
Emmani	JJ.1			ug/L	100.00	7. 27	J -1	00 120			



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

February 07, 2017

Report No.: AAA0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020032 - EPA 7470A											
Blank (7020032-BLK1)						Prepare	ed & Analy	/zed: 02/02	2/17		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7020032-BS1)						Prepare	ed & Analy	/zed: 02/02	2/17		
Mercury	0.00252	0.00050	0.000041	mg/L	2.5000E-3		101	80-120			
Matrix Spike (7020032-MS1)		Soi	ırce: AAA09	09-10		Prepare	ed & Analy	/zed: 02/02	2/17		
Mercury	0.00253	0.00050	0.000041	mg/L	2.5000E-3	0.00008	98	75-125			
Matrix Spike Dup (7020032-MSD1)		Soi	urce: AAA09	09-10		Prepare	ed & Analy	/zed: 02/02	2/17		
Mercury	0.00249	0.00050	0.000041	mg/L	2.5000E-3	0.00008	96	75-125	2	20	
Post Spike (7020032-PS1)		Soi	ırce: AAA09	09-10		Prepare	ed & Analy	/zed: 02/02	2/17		
Mercury	1.67			ug/L	1.6667	0.0534	97	80-120			



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 February 07, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit MDL - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

- **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

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PAGE:

5 - NaOH/ZnAc, ≤6°C 7 - <6°C not frozen Extra radium volume collected for Lab QA/QC Extra radium volume collected for Lab QA/QC 6 - Na₂S₂O₃, ≤6°C REMARKS/ADDITIONAL INFORMATION 2 - H₂SO₄, ≤6°C 4 - NaOH, <6°C P - PRODUCT 1 - HCI, ≤6°C PRESERVATION SL - SLUDGE L. LIQUID SD - SOUD 3 - HNO3 S - SOIL A - AIR *MATRIX CODES DRINKING WATER SURFACE WATER GW - GROUNDWATER STORM WATER NW - WASTEWATER P - PLASTIC A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE V - VOA VIAL S - STERILE O - OTHER WATER racking #: LAB #: SW. ST. Š 0 C BAL - 0 Z D Z M W K 8 1 DATE/TIME CLENT ANALYSIS REQUESTED FEM (0256/2156 348-W2) ۵ 2 2 2 2 Radium 226 & 228 (EPA 300.0 & SM 2540C) ۵ RELINQUISHED BY: CI, F, 50, & TDS (EPA 6020/7470) RELINQUISHED BY: ۵ FED EX Wetals Part 257 App. III & IV CONTAINER TYPE: PRESERVATION # of 00Z - 4 - Z m K v 9 9 Bdl laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGWC-10 HGWC-15 HGWC-16 HGWC-11 HGWC-12 HGWC-13 HGWC-14 HGWC-18 HGWC-17 HGWC-9 DUP-2 DUP-1 Maria Padilla 15:12 1/26/2017 / DATE/TIME: ETIME! DATE/TIME Plant Hammond - AP 1&2 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: SS # Od SC: 0 c < m × × × × × × × × 五十多 OOEn SAMPLED BY AND TITLE M.Thomas M.S. M. Burch M.S. W.Virgo W.F. 42 Inverness Center Parkway BIN B426 MATRIX CODE* REQUESTED COMPLETION DATE: GW GW GW GW Ø. GW GW GW GW GW βM GW Lauren Petty PROJECT NAME/STATE Collection 13:15 11:07 12:15 13:20 15:12 9:50 10:52 14:30 9:43 9:25 Birmingham, AL 35242 CLIENT NAME Georgia Power ECEIVED BY 205-992-5417 REPORT TO: Collection DATE 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 PROJECT M.Burch Page 29 of 31

2017 01 26 Hammond COCs.xlsx

No NA

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CHAIN OF CUSTODY RECORD

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

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Plant Hammond - AP 1822 No.	Plant Hammond - AP 182	PROJECT NA	ME/STATE			laburch(@southernco.com	- < -	VI &	G Space	i d						
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Environmental Monitoring & Laboratory Analysis 110 Technology Parkway, Peachtree Corners, GA 30092 (770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 1/30/2017 8:46:08AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project:CCR EventWork Order:AAA0909Date Received:01/27/17 12:25Logged In By:Charles Hawks

OBSERVATIONS

#Samples: 16 **#Containers:** 68

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:

(724)850-5600



February 28, 2017

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30209269

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on January 30, 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

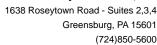
Sugnely Sellins

jacquelyn.collins@pacelabs.com

(724)850-5612 Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30209269

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

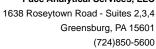
Texas/TNI Certification #: T104704188-14-8 Utah/TNI Certification #: PA014572015-5

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

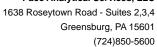




SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30209269

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30209269001	HGWC-9	Water	01/26/17 09:25	01/30/17 09:05
30209269002	HGWC-10	Water	01/26/17 09:50	01/30/17 09:05
30209269003	HGWC-11	Water	01/26/17 12:15	01/30/17 09:05
30209269004	HGWC-12	Water	01/26/17 09:43	01/30/17 09:05
30209269005	HGWC-13	Water	01/26/17 10:52	01/30/17 09:05
30209269006	HGWC-14	Water	01/26/17 13:15	01/30/17 09:05
30209269007	HGWC-15	Water	01/26/17 14:30	01/30/17 09:05
30209269008	HGWC-16	Water	01/26/17 11:07	01/30/17 09:05
30209269009	HGWC-17	Water	01/26/17 13:20	01/30/17 09:05
30209269010	HGWC-18	Water	01/26/17 15:12	01/30/17 09:05
30209269011	Dup-1	Water	01/26/17 00:00	01/30/17 09:05
30209269012	Dup-2	Water	01/26/17 00:00	01/30/17 09:05
30209269013	FB-1	Water	01/26/17 13:35	01/30/17 09:05
30209269014	FERB-1	Water	01/26/17 13:40	01/30/17 09:05
30209269015	FB-2	Water	01/26/17 14:05	01/30/17 09:05
30209269016	FERB-2	Water	01/26/17 14:10	01/30/17 09:05

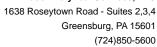




SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30209269

MGWC-9	Lab ID	Sample ID	Method	Analysts	Analytes Reported
Total Radium Calculation	30209269001	HGWC-9	EPA 9315	LAL	1
30209269002 HGWC-10 EPA 9315 LAL EPA 9320 JLW 30209269003 HGWC-11 EPA 9310 LAL EPA 9315 LAL EPA 9315 LAL EPA 9316 LAL EPA 9320 JLW 30209269004 HGWC-12 EPA 9315 LAL EPA 9320 JLW EPA 9320 JLW 30209269005 HGWC-13 EPA 9315 LAL EPA 9315 LAL EPA 9320 JLW BOUNDAMY EPA 9315 LAL EPA 9320 JLW 30209269006 HGWC-14 EPA 9315 LAL EPA 9315 LAL EPA 9320 JLW EPA 9315 LAL EPA 9315 LAL EPA 9320 JLW EPA 9315 LAL EPA 9315 LAL EPA 9320 JLW EPA 9315 LAL EPA 9315 LAL EPA 9320 JLW EPA 9320 JLW 30209269008 HGWC-17 EPA 9315 LAL EPA 9315 <th< td=""><td></td><td></td><td>EPA 9320</td><td>JLW</td><td>1</td></th<>			EPA 9320	JLW	1
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BPA 9320			Total Radium Calculation	RMK	1
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EPA 9320 JLW Total Radium Calculation RMK			Total Radium Calculation	RMK	1
Total Radium Calculation RMK	30209269012	Dup-2	EPA 9315	LAL	1
			EPA 9320	JLW	1
30209269013 FB-1 EPA 9315 LAL			Total Radium Calculation	RMK	1
	30209269013	FB-1	EPA 9315	LAL	1

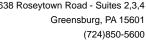




SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30209269

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30209269014	FERB-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30209269015	FB-2	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30209269016	FERB-2	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209269

Sample: HGWC-9	Lab ID: 30209269		Received:	01/30/17 09:05	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.00303 ± 0.0982 (0.285) C:93% T:NA	pCi/L	02/15/17 11:49	13982-63-3	
Radium-228	EPA 9320	0.512 ± 0.529 (1.10) C:53% T:87%	pCi/L	02/23/17 15:53	3 15262-20-1	
Total Radium	Total Radium Calculation	0.515 ± 0.627 (1.39)	pCi/L	02/24/17 16:50	7440-14-4	
Sample: HGWC-10	Lab ID: 30209269		Received:	01/30/17 09:05	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.141 ± 0.153 (0.293) C:87% T:NA	pCi/L	02/15/17 11:49	13982-63-3	
Radium-228	EPA 9320	0.781 ± 0.403 (0.714) C:79% T:80%	pCi/L	02/23/17 15:53	3 15262-20-1	
Total Radium	Total Radium Calculation	0.922 ± 0.556 (1.01)	pCi/L	02/24/17 16:50	7440-14-4	
Sample: HGWC-11 PWS:	Lab ID: 3020926 Site ID:	O003 Collected: 01/26/17 12:15 Sample Type:	Received:	01/30/17 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0570 ± 0.117 (0.274) C:87% T:NA	pCi/L	02/15/17 13:24	13982-63-3	
Radium-228	EPA 9320	$0.785 \pm 0.485 (0.918)$	pCi/L	02/25/17 15:54	15262-20-1	
Total Radium	Total Radium Calculation	C:63% T:85% 0.842 ± 0.602 (1.19)	pCi/L	02/27/17 17:03	3 7440-14-4	
Sample: HGWC-12 PWS:	Lab ID: 3020926 9 Site ID:	O004 Collected: 01/26/17 09:43 Sample Type:	Received:	01/30/17 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.136 ± 0.153 (0.300)	pCi/L	02/15/17 13:24	13982-63-3	
Radium-228	EPA 9320	C:91% T:NA 0.404 ± 0.367 (0.749)	pCi/L	02/25/17 15:54	15262-20-1	
Total Radium	Total Radium Calculation	C:79% T:82% 0.540 ± 0.520 (1.05)	pCi/L	02/27/17 17:03	3 7440-14-4	
Sample: HGWC-13 PWS:	Lab ID: 30209269 Site ID:	9005 Collected: 01/26/17 10:52 Sample Type:	Received:	01/30/17 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0912 ± 0.138 (0.297)	pCi/L	02/15/17 13:24		
Radium-228	EPA 9320	C:90% T:NA 1.13 ± 0.507 (0.847) C:63% T:86%	pCi/L	02/25/17 15:54	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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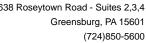


ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30209269 Sample: HGWC-13 Lab ID: 30209269005 Collected: 01/26/17 10:52 Received: 01/30/17 09:05 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Total Radium Total Radium 1.22 ± 0.645 (1.14) pCi/L 02/27/17 17:03 7440-14-4 Calculation Sample: HGWC-14 Lab ID: 30209269006 Collected: 01/26/17 13:15 Received: 01/30/17 09:05 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.349 \pm 0.205 \quad (0.273)$ Radium-226 pCi/L 02/15/17 13:24 13982-63-3 C:96% T:NA Radium-228 EPA 9320 $1.75 \pm 0.602 \quad (0.849)$ pCi/L 02/25/17 15:54 15262-20-1 C:71% T:74% Total Radium Total Radium 2.10 ± 0.807 (1.12) pCi/L 02/27/17 17:03 7440-14-4 Calculation Sample: HGWC-15 Lab ID: 30209269007 Collected: 01/26/17 14:30 Received: 01/30/17 09:05 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual 0.0214 ± 0.113 (0.301) EPA 9315 02/15/17 13:24 13982-63-3 Radium-226 pCi/L C:86% T:NA Radium-228 EPA 9320 $0.605 \pm 0.466 \quad (0.920)$ pCi/L 02/25/17 15:54 15262-20-1 C:61% T:80% Total Radium Total Radium 0.626 ± 0.579 (1.22) pCi/L 02/27/17 17:03 7440-14-4 Calculation Lab ID: 30209269008 Sample: HGWC-16 Collected: 01/26/17 11:07 Received: 01/30/17 09:05 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 $0.0215 \pm 0.159 \quad (0.410)$ Radium-226 pCi/L 02/15/17 13:24 13982-63-3 C:94% T:NA EPA 9320 $1.27 \pm 0.548 \quad (0.896)$ Radium-228 pCi/L 02/25/17 15:54 15262-20-1 C:62% T:82% Total Radium Total Radium 1.29 ± 0.707 (1.31) pCi/L 02/27/17 17:03 7440-14-4 Calculation Sample: HGWC-17 Lab ID: 30209269009 Collected: 01/26/17 13:20 Received: 01/30/17 09:05 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed Radium-226 EPA 9315 $0.0524 \pm 0.117 \quad (0.277)$ pCi/L 02/15/17 13:24 13982-63-3 C:95% T:NA EPA 9320 0.560 ± 0.487 Radium-228 (0.990)pCi/L 02/25/17 15:54 15262-20-1 C:62% T:81% Total Radium pCi/L Total Radium 0.612 ± 0.604 (1.27) 02/27/17 17:03 7440-14-4

REPORT OF LABORATORY ANALYSIS

Calculation





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project:	Plant Hammond
Pace Project No.:	30209269

Pace Project No.: 3020926	9					
Sample: HGWC-18	Lab ID: 3020926		Received:	01/30/17 09:05 M	latrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.541 ± 0.252 (0.286) C:97% T:NA	pCi/L	02/15/17 13:24	13982-63-3	
Radium-228	EPA 9320	1.72 ± 0.596 (0.831) C:62% T:84%	pCi/L	02/25/17 15:54	15262-20-1	
Total Radium	Total Radium Calculation	2.26 ± 0.848 (1.12)	pCi/L	02/27/17 17:03	7440-14-4	
Sample: Dup-1	Lab ID: 3020926	9011 Collected: 01/26/17 00:00	Received:	01/30/17 09:05 M	latrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0355 ± 0.114 (0.291) C:85% T:NA	pCi/L	02/15/17 13:24	13982-63-3	
Radium-228	EPA 9320	0.559 ± 0.390 (0.753) C:72% T:85%	pCi/L	02/25/17 15:55	15262-20-1	
Total Radium	Total Radium Calculation	0.595 ± 0.504 (1.04)	pCi/L	02/27/17 17:03	7440-14-4	
Sample: Dup-2 PWS:	Lab ID: 3020926 Site ID:	9012 Collected: 01/26/17 00:00 Sample Type:	Received:	01/30/17 09:05 M	latrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0804 ± 0.139 (0.312)	pCi/L		13982-63-3	
Radium-228	EPA 9320	C:93% T:NA 1.41 ± 0.516 (0.728)	pCi/L	02/25/17 15:55	15262-20-1	
Total Radium	Total Radium Calculation	C:63% T:84% 1.49 ± 0.655 (1.04)	pCi/L	02/27/17 17:03	7440-14-4	
Sample: FB-1 PWS:	Lab ID: 3020926 Site ID:	9013 Collected: 01/26/17 13:35 Sample Type:	Received:	01/30/17 09:05 M	latrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0617 ± 0.136 (0.321) C:92% T:NA	pCi/L	02/15/17 11:49	13982-63-3	
Radium-228	EPA 9320	0.735 ± 0.759 (1.59) C:52% T:80%	pCi/L	02/25/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	0.797 ± 0.895 (1.91)	pCi/L	02/27/17 17:03	7440-14-4	
Sample: FERB-1 PWS:	Lab ID: 3020926 Site ID:	9014 Collected: 01/26/17 13:40 Sample Type:	Received:	01/30/17 09:05 M	latrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.00923 ± 0.0949 (0.269)	pCi/L	02/15/17 14:56		
Radium-228	EPA 9320	C:92% T:NA 0.543 ± 0.513 (1.06) C:58% T:86%	pCi/L	02/25/17 15:59	15262-20-1	

Matrix: Water



Sample: FB-2

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209269

 Sample:
 FERB-1
 Lab ID:
 30209269014
 Collected:
 01/26/17 13:40
 Received:
 01/30/17 09:05
 Matrix:
 Water

PWS: Site ID: Sample Type:

Lab ID: 30209269015

 Parameters
 Method
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 CAS No.
 Qual

 Total Radium
 Total Radium
 0.552 ± 0.608 (1.33)
 pCi/L
 02/27/17 17:03 7440-14-4

Calculation

PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.0540 \pm 0.111 \quad (0.259)$ Radium-226 pCi/L 02/15/17 14:56 13982-63-3 C:95% T:NA Radium-228 EPA 9320 0.341 ± 0.643 (1.41) pCi/L 02/25/17 15:59 15262-20-1 C:59% T:80% Total Radium Total Radium 0.395 ± 0.754 (1.67) pCi/L 02/27/17 17:03 7440-14-4 Calculation

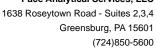
Collected: 01/26/17 14:05

Received: 01/30/17 09:05

Sample: FERB-2 Lab ID: 30209269016 Collected: 01/26/17 14:10 Received: 01/30/17 09:05 Matrix: Water

PWS: Site ID: Sample Type:

Qual **Parameters** Method Act ± Unc (MDC) Carr Trac CAS No. Units Analyzed EPA 9315 $0.0876 \pm 0.134 \quad (0.291)$ Radium-226 02/15/17 14:56 13982-63-3 pCi/L C:97% T:NA EPA 9320 0.0183 ± 0.480 Radium-228 (1.10)pCi/L 02/25/17 15:59 15262-20-1 C:63% T:87% Total Radium Total Radium 0.106 ± 0.614 (1.39) pCi/L 02/27/17 17:03 7440-14-4 Calculation





Project: Plant Hammond

Pace Project No.: 30209269

Radium-228

QC Batch: 248966 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30209269003, 30209269004, 30209269005, 30209269006, 30209269007, 30209269008, 30209269009,

30209269010, 30209269011, 30209269012, 30209269013, 30209269014, 30209269015, 30209269016

METHOD BLANK: 1224568 Matrix: Water

Associated Lab Samples: 30209269003, 30209269004, 30209269005, 30209269006, 30209269007, 30209269008, 30209269009,

30209269010, 30209269011, 30209269012, 30209269013, 30209269014, 30209269015, 30209269016

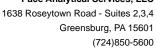
pCi/L

02/25/17 15:54

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

0.973 ± 0.433 (0.716) C:90% T:70%

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.





Project: Plant Hammond

Pace Project No.: 30209269

QC Batch: 248826 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30209269003, 30209269004, 30209269005, 30209269006, 30209269007, 30209269008, 30209269009, 30209269011, 30209269012, 30209269013, 30209269014, 30209269015, 30209269016

METHOD BLANK: 1223625 Matrix: Water

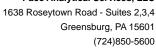
Associated Lab Samples: 30209269003, 30209269004, 30209269005, 30209269006, 30209269007, 30209269008, 30209269009,

30209269010, 30209269011, 30209269012, 30209269013, 30209269014, 30209269015, 30209269016

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.00927 ± 0.0954 (0.270) C:97% T:NA pCi/L 02/15/17 13:24

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.





Project: Plant Hammond

Pace Project No.: 30209269

QC Batch: 248965 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30209269001, 30209269002

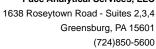
METHOD BLANK: 1224567 Matrix: Water

Associated Lab Samples: 30209269001, 30209269002

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.0945 ± 0.388 (0.887) C:53% T:83% pCi/L 02/23/17 11:46

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





Project: Plant Hammond

Pace Project No.: 30209269

QC Batch: 248825 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30209269001, 30209269002

METHOD BLANK: 1223624 Matrix: Water

Associated Lab Samples: 30209269001, 30209269002

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.0911 ± 0.153 (0.342) C:91% T:NA pCi/L 02/15/17 09:03

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.



QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30209269

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

Date: 02/28/2017 09:22 AM

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.

Results Requested By: 2/21/2017 WO#:30209269 Requested Analysis 126, 228, Total Owner Received Date: Workorder Name: Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Pace - Pittsburgh Subcontract To: Stes. 2,3,4 Peachtree Corners, GA 30092 Workorder: AAA0909 110 Technology Parkway Pace Analytical Atlanta Phone (770)-734-4200 Betsy McDaniel

Face Analytical "

						Preserved Containers			
-		Sample				 	inil	30200269	
Item	tem Sample ID	Туре	Collect Date/Time Lab	Lab ID	Matrix	NH	Вас		IABLISEONIY
⊣	HGWC-9	9	1/26/2017 9:25	AAA0909-01	Q.W	2	×		
7	HGWC-10	9	1/26/2017 9:50	AAA0909-02	МS	2	×		36
m	HGWC-11	9	1/26/2017 12:15	AAA0909-03	ВW	4	×		360
4	HGWC-12	9	1/26/2017 9:43	AAA0909-04	ВW	4	×		35
2	HGWC-13	9	1/26/2017 10:52	AAA0909-05	ВW	2	×		
9	HGWC-14	9	1/26/2017 13:15	AAA0909-06	ВW	2	×		38
7	HGWC-15	9	1/26/2017 14:30	AAA0909-07	ВW	2	×		38
∞	HGWC-16	9	1/26/2017 11:07	AAA0909-08	GW	2	×		38
ი	HGWC-17	Ð	1/26/2017 13:20	AAA0909-09	GW	2	×		
10	HGWC-18	9	1/26/2017 15:12	AAA0909-10	βM	2	×		
Tran	ransfers Released By		Date/Time	Time Received By	By		Date/Time	Comments	30
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7)					
3									

Sample Intact Y or N	rovided on this COC	
/ Seal Y of N Received on Ice Y of N	ne of the sampling site, sampler's name and signature may not be provided on this COC	is information is available in the owner laboratory.
Cooler Temperature on Receipt C Custody Se	***In order to maintain client confidentiality, location/name	This chain of custody is considered complete as is since this ir

FMT-ALL-C-002rev.00 24March2009

Page 1 of 2

O (0) S 30209

Pace Analytical

Chain of Custody

LAB USE ONLY Results Requested By: 2/21/2017 EQuIS deliverable required. Comments Requested Analysis Date/Time Radium 226, 228, Total × 1-30-1 Owner Received Date: Preserved Containers ниоз Matrix Ø Ø ≥ ≥ ≥ ≥ Received By AAA0909-15 AAA0909-14 AAA0909-16 AAA0909-12 AAA0909-13 AAA0909-11 Workorder Name: Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Collect Date/Time Lab ID Date/Time Pace - Pittsburgh Subcontract To: 1/26/2017 13:35 1/26/2017 13:40 1/26/2017 14:05 1/26/2017 14:10 1/26/2017 0:00 Stes. 2,3,4 1/26/2017 0:00 る一切にく Sample Туре G G G G G Peachtree Corners, GA 30092 Workorder: AAA0909 110 Technology Parkway Pace Analytical Atlanta Phone (770)-734-4200 Transfers | Released By **Betsy McDaniel** Item Sample ID FERB-2 FERB-1 Dup-2 Dup-1 Report To: FB-1 FB-2 19 13 14 15 16 18

- 100 V			1
Cooler lemperature on Receipt //// C Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N	N O
***In order to maintain client confidentiality, location/name of the sampling site, s	n/name of the sampling site, sampler's name and signature may not be provided on this COC	ded on this COC	
This chain of custody is considered complete as is since this information is available in the owner lahoratory	in the owner laboratory		

(T) O CV 0 N M

Face Analytical CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc. 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092

(770) 734-4200 : FAX (770) 734-4201 : www. ssi-lab.com

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PAGE:

5 - NaOH/ZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - 46°C not frozen Extra radium volume collected for Lab QA/QC Extra radium volume collected for Lab QA/QC REMARKS/ADDITIONAL INFORMATION 1 - HCl, 25°C 2 - H₂SO₄, 26°C 4 - NaOH, S6°C P - PRODUCT SL - SLUDGE SD - SOLID PRESERVATION T- LIQUID 3 - HNO3 A - AIR MATRIX CODES SW - SURFACE WATER ST - STORM WATER DRINKING WATER GW - GROUNDWATER NW - WASTEWATER A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE S - STERILE O - OTHER V - VOA VIAL P - PLASTIC W - WATER Entered into I racking #: LAB# Q د> 1 4 B Z D Z B W K 4 **—** О 8 OTHER DATE/TIME: DATE/TIME を当る ANALYSIS REQUESTED DRY V (0266/2166 948-WS) ო 0 4 ~ N N 0 ~ Ŋ N ~ Radium 226 & 228 (EPA 300.0 & SM 2540C) CI, F, SO, & TDS RELINQUISHED BY: RELINQUISHED BY: (EPA 6020/7470) Ω. VI & III .qqA Y2S heq elateM CONTAINER TYPE: PRESERVATION # O OOZH K-ZEKS ဖ ø 4 4 4 4 4 4 4 laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGWC-10 HGWC-12 HGWC-14 HGWC-15 HGWC-18 HGWC-9 HGWC-11 HGWC-13 HGWC-16 HGWC-17 DUP-2 Maria Padilla DUP-1 15:12 1/26/2017 / DATE/TIME: DATECTIME Plant Hammond - AP 1&2 3 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER 8 PO ## × மா∢ம × × × × × × × × × × × 方言的 Z O O E a SAMPLED BY AND TITLE M.Thomas 42 Inverness Center Parkway BIN B426 2 REQUESTED COMPLETION DATE: MATRIX CODE ĞΜ <u>≷</u> SW GW ĞΜ Š Ŋ. ĞΚ GW ĠΨ GW GW ĕ 8 3(3) Lauren Petty PROJECT NAME/STATE: Collection 12:15 13:15 15:12 TIME 14:30 13:20 9:43 10:52 11:07 Birmingham, AL 35242 9.25 9:50 M.Burch 万 RECEIVED BY: CLIENT NAME Georgia Power 205-992-5417 REPORT TO PROJECT # 01/26/17 01/26/17 01/26/17 01/26/17 Collection 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 01/26/17 DATE

Page 17 of 23

2017 01 26 Hammond COCs.xlsx

Pace Analytical

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 : FAX (770) 734-4201 : WWW 381-185, com

PAGE: 2 OF

CLIENT NAME:			l					Caroal Cad Sisk Mind	011010	CIL					g
Georgia Power					Contrato Co	-	-	מוכן חייות				» ر	CONTAINER LYPE	THEORING TO THE TOTAL THE TOTAL TO THE TOTAL	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	SSIPHON	E NUMBER/F	AXN		PRESERVA	i i	. 67	7				(a	A - AMRER GLASS	2 H.SO. 46°C	
42 Inverness Center Parkway BIN B426	nter Parkw	ray BIN B426			Jo#	+	+	+					G - CI FAR GLASS	3- HNO	and the same of
Birmingham, AL 35242	35242				i								V - VOA VIAL	4 - NaOH, SG'C	·
205-992-5417					υ								S - STERILE	5 - NaOH/ZnAc, ≤6°C	-
REPORT TO:				CC: Maria Padilla	0		*****					0	O - OTHER	6 - Na ₂ S ₂ O ₃ , ≤6°C	
	Lauren Petty	etty		Heath McCorkle	z									7 - ≤6°C not frozen	2//02/20
REQUESTED COMPLETION DATE:	OMPLETI(ON DATE:		PO#:	⊢ <							Z :	Ş	MATERIA CODES.	
PROJECT NAME/STATE	E/STATE:				c			{) \$	2 80	N COCES	Was a same
		Plant Har	пошш	Plant Hammond - AP 1&2	Z u	III ac						. W r	DW - DRINKING WATER	S - SOIL	
PROJECT #:				CCR	1 CK 07	A 722	(0242	8, 228 8, 528				u oʻz	GW - GROUNDWATER SW - SLIRFACE WATER	SC. SCUDS. SD. SOLD A. AIR	
Collection	Collection	MATRIX CODE-	O 0 ≥	SAMPLE IDENTIFICATION)	ha9 ele	70209 A 8 , O2 ,≅	0.00£ A 8SS mui £6 9A8-1					ST - STORM WATER W - WATER	L- LIQUID P- PRODÚCT	· · · · · · · · · · · · · · · · · · ·
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01/26/17	13:35	W	ж	FB-1	4		-	2				2			1
01/26/17	13:40	W	ж	FERB-1	4		-	2				1			
01/26/17	14:05	×	×	FB-2	4		+-	2				<u> </u>		-	(West and project of
01/26/17	14:10	≯	×	FERB-2	4		-	2				2			
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THE TAXABLE PROPERTY OF THE PARTY OF THE PAR			:	Common or the control of the control	i	<u> </u>							To the contract of the contrac	The second secon	Ī
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SAMPLED BY AND TITLE M.Thomas/// M.Burch ////3 W.Virgo (L/F)	IND TITLE	M.Thomas//W. W.Virgo W/F	Ĺ	DATE/TIME: 1/26/2017 / 15:12	RELEX	RELINQUISHED BY:	BY:	(EPA)		\bigcup	DATE/TIME:	38	FOR LA	FOR LAB USE ONLY	
RECEIVED BY:		,		DATE/TIME:	RELINC	RELINQUISHED BY	BY:		1		DATE/TIME:		Entered Info LIMS:	15.25 17.52	
RECEIVED BY LAB.		tusho-		DATEPLINE IT I TO THE	SAN DON	SAMPLE SAMPPED VIA	ED VAA:	00 00 00 00 00 00 00 00 00 00 00 00 00		7.0	CLENT	NA NA	Tracking #:		
oHerbecked Yes No	. 4	De. Yes No	3	Templitude Ac white the		17.50 17.00	4 july 2								
) Par)				2017 (JI 26 I	2017 01 26 Hammond COCs.xlsx	COCs.xlsx				AND THE RESIDENCE OF THE PROPERTY OF THE PROPE		

Sample Condition Upon Re	eceipt	Pitts	bu	rgh		
						30209269
Face Analytical Client Name:		f	$\frac{\partial}{\partial x}$	cejo	GA	_ Project #
Courier: Fed Ex UPS USPS CT	Olient [Com	mer	cial [Pace Other	
Custody Seal on Cooler/Box Present: y	es 🖒	no		eals int		□ no
Thermometer Used N/A	Туре	of Ice			Blue (None)	
Cooler Temperature Observed Temp Temp should be above freezing to 6°C		- ° C			on Factor:	°C Final Temp: °C
Comments:	Yes	No	N.	/A]		Date and Initials of person examining contents:
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:	TX			5.		
-Includes date/time/ID Matrix:	NT					
Samples Arrived within Hold Time:	X			6.		
Short Hold Time Analysis (<72hr remaining):	7	X		7.		
Rush Turn Around Time Requested:		X		8.		
Sufficient Volume:	X			9.		
Соггесt Containers Used:	X			10.		
-Pace Containers Used:	X			1		
Containers Intact:	TŽT			11.		
Orthophosphate field filtered		Į.	X	12.		
Organic Samples checked for dechlorination:		172	X	13.		
Filtered volume received for Dissolved tests			X	14.		
Il containers have been checked for preservation.	X		<u> </u>	15.		
Il containers needing preservation are found to be in ompliance with EPA recommendation.	X				PH62	
xceptions: VOA, coliform, TOC, O&G, Phenolics		•			when 29 K eted 29 K	Date/time of preservation
eadspace in VOA Vials (>6mm):			\mathbf{X}	16.		
ip Blank Present:		x "		17.		
ip Blank Custody Seals Present			X	•••		
ad Aqueous Samples Screened > 0.5 mrem/hr	,	χľ		Initial w	hen 09 f	Date: 1-30-17
ient Notification/ Resolution:		<u> </u>		, npic	Su. (1 1 1 1)	Date, 1 30 1
Person Contacted:		Da	te/Γ	ime:		Contacted By:
Comments/ Resolution:						Contacted by.
						
A check in this box indicates that additi	onal inf	ormat	ion	has t	een 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.

Face Analytical €

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample MS LD. Sample MSD I.D. Spike I.D.:

Sample Collection Date: Sample I.D.

Sample Matrix Spike Control Assessment

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F):

Spike Volume Used in MS (mL)

2/14/2017 Test: Date: Analyst: Vorklist

33969 DW Matrix:

See Comment 0.973 0.396 0.716 4.82 Ϋ́ MB Sample ID MB concentration: MB Status vs. MDC: M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator: MB Status vs Numerical Indicator:

Method Blank Assessment

N io ≿) Laboratory Control Sample Assessment

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:

LCSD33969 LCS33969 2/25/2017 16-027 25.210 0.20 0.801 6.295 0.453 6.275 Farget Conc. (pCi/L, g, F): Result (pC//L, g, F):
LCS/LCSD Counting Uncertainty (pC//L, g, F): Count Date: Spike I.D.: Spike Concentration (pCi/mL): Volume Used (mL): Aliquot Volume (L, g, F): Uncertainty (Calculated):

0.938 Numerical Performance Indicator: Percent Recovery: Status vs Numerical Indicator: Status vs Recovery

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 Result Counting Uncertainty (pCl/L, g, F): Sample Matrix Spike Duplicate Result: Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Matrix Spike/Matrix Spike Duplicate Sample Assessment

> other than LCS/LCSD in Enter Duplicate

sample IDs if

30209269003DUP

0.785 0.464 0.530

Sample I.D.:

Duplicate Sample I.D.

Sample Result (pC/II., g, F):

Sample Droertainy (pC/II., g, F):

Sample Duplicate Result (pC/II., g, F):

Duplicate Sample Assessment

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC?

30209269003

he space below

1.618

See Below 排

-2.316 69.30%

Duplicate Numerical Performance Indicator:

Duplicate RPD:

Duplicate Status vs Numerical Indicator:

Ϋ́

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

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

Comments:

1 of 1

Face Analytical

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment

Sample I.D. Sample MS I.D. Sample Collection Date:

Sample MSD I.D.

Spike I.D.:

MS/MSD Decay Corrected Spike Concentration (pCi/mL);

Spike Volume Used in MSD (mL):

Spike Volume Used in MS (mL):

JĽ.W

Test:

Analyst:

2/15/2017 Date:

Worklist		33968
Matrix:		O≪
Method Blank Assessment		
. MB Sample ID	•	224567
MB concentration:		0.094
M/B Counting Uncertainty:		0.387
MB MDC:		0.887
MB Numerical Performance Indicator:		0.48
MB Status vs Numerical Indicator:		N/A
MB Status vs. MDC:		Pass

N .CSD33968	MS Affact (L, g, F): MS Target Conc.(pCit., g, F): MSD Aliquet (L, g, F): MSD Target Conc. (pCit., g, F):	Spike uncertainty (calculated):	Sample Result Counting Uncertainty (pCifL, 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:
		N LCSD33968							

16-027 25.228 0.30 0.802 9.439 0.680 8.775

Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F):

Uncertainty (Calculated):

Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F):

Numerical Performance Indicator;

Percent Recovery: Status vs Numerical Indicator; Status vs Recovery:

-1.18 92.97%

7123/2017

Count Date:

Laboratory Control Sample Assessment

Spike LD.: Spike Concentration (pCi/mL):

Volume Used (mL):

	Matrix Spike/Matrix Spike Duplicate Sample Assessment
Enter Duplicate sample IDs if	Sample ID
other than	U.I. OM aldmad
LCS/LCSD in	Sample Matrix Shirts Sample Matrix Shirts Person
the space below.	Matrix Spike Result Counting Uncertainty (pCI/L, q, F)
	Sample Matrix Spike Dunificate Result
30209606003	Duplicate Numerical Performance Indiana
30209606003DUP	(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:
	MS/ MSD Duplicate Status vs Numerical Indicator:
ر	MS/ MSD Duplicate Status vs RPD:
estults are below the MDC.	

0.702 0.483 1.313 0.568

Sample Result Counting Uncertainty (DC/IL, g, F):
Sample Duplicate Result (pC/IL, g, F):
Sample Duplicate Result Counting Uncertainty (pC/IL, g, F):
Are sample and/or duplicate results below MDC?

See Below 排

-1.606 60.66%

Duplicate RPD:

Duplicate Numerical Performance Indicator;

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD

ΑX

30209606003DUP

30209606003

Sample I.D.: Duplicate Sample I.D.

Duplicate Sample Assessment

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

Comments:

Evaluation of duplicate precision is not applicable if either the sample or duplicate

1 of 1

Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date: Sample MS I.D. Sample MSD I.D. Sample 1.D.

Sample Matrix Spike Control Assessment

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 Percent Recovery:

MSD Percent Recovery

MSD Numerical Performance Indicator.

MS Numerical Performance Indicator

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

LAL 2/14/2017 Ra-226 Test: Date: Analyst:

33940 DW Worklist: Matrix:

0.153 0.342 1.17 N/A Pass MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC Method Blank Assessment

N LCSD33940 LCS33940 2/15/2017 16-026 44.669 0.10 0.506 8.835 0.416 7.810 0.845 Count Date: Farget Conc. (pCi/L, g, F): Uncertainty (Calculated): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Spike I.D.: Spike Concentration (pCi/mL): Volume Used (ml.): Aliquot Volume (L, g, F): Result (pCi/L, g, F): -aboratory Control Sample Assessment

-2.13 88.39% Percent Recovery: Status vs Numerical Indicator: Status vs Recovery

Numerical Performance Indicator:

.CS/LCSD in the Enter Duplicate sample IDs if space below. other than 30209606003DUP 30209606003 See Below # 0.569 0.256 0.234 0.182 N/A Fail* Sample I.D.: Duplicate Sample I.D. Duplicate RPD: Sample Result (pCi/l, g, F): Sample Result (pCi/l, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/l., g, F): Are sample and/or duplicate results below MDC? Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD; Duplicate Sample Assessment

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/ MSD Duplicate RPD:

MS/ MSD Duplicate Status vs RPD

Duplicate Numerical Performance Indicator. MS/ MSD Duplicate Status vs Numerical Indicator:

Sample I.D.

Sample MS I.D. Sample MSD I.D.

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.

Printed: 2/27/2017 1:05 PM TAR DW QC

Pace Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment

Ra-226 Test:

¥	2/14/2017	33941	λ	
Analyst:	Date:	Worklist:	Matrix:	

Sample Collection Date: Sample 1.D. Sample MS I.D. Sample MSD I.D.

Spike LD.

Spike Volume Used in MS (mL): Spike Volume Used in MSD (ml.);

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

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

MS Aliquot (L. g, F):

Γ	55	_		_			
	1223625	0.009	0.095	0.270	0.19	A/N	Pass
Method Blank Assessment	MB Sample 1D	MB concentration:	M/B Counting Uncertainty:	MB MDC:	MB Numerical Performance Indicator:	MB Status vs Numerical Indicator:	MB Status vs. MDC:

Laboratory Contri

rol Sample Assessment	LCSD (Y or N)?	z
	LCS33941	LCSD33941
Count Date:	2/15/2017	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.669	
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):	8.538	-
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.886	
Numerical Performance Indicator:	-0.76	
Percent Recovery:	95.76%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

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 Percent Recovery:

MSD Percent Recovery

MS Numerical Performance Indicator. MSD Numerical Performance Indicator: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:

MS Status vs Recovery:

MSD Status vs Recover

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Duplicate Sample Assessment		
Sample I.D.:	30209269003	Enter Duplicate
Duplicate Sample I.D. 30209269003DUP	209269003DUP	sample IDs if
Sample Result (pCi/l., g, F):	0.057	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.117	LCS/LCSD in the
Sample Duplicate Result (pCi/L, g, F):	0.129	space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.142	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.761	30209269003
Duplicate RPD:	77.11%	30209269003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD;	Fail**	

Sample I.D. Sample MS I.D.

Sample Matrix Spike Result:

Sample Matrix Spike Duplicate Result:

MS/ MSD Duplicate RPD:

Duplicate Numerical Performance Indicator:

Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Matrix Spike Duplicate Result Counting Uncertainty (pCl/L, g, F):

Sample MSD I.D.

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 and below the MDC.

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

Comments:



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: AAC0796
April 03, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, LLC.

All test results relate only to the samples analyzed.



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

April 03, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-1	AAC0796-01	Ground Water	03/21/17 10:28	03/22/17 12:30
HGWA-2	AAC0796-02	Ground Water	03/21/17 11:00	03/22/17 12:30
HGWA-3	AAC0796-03	Ground Water	03/21/17 12:17	03/22/17 12:30
HGWA-4	AAC0796-04	Ground Water	03/21/17 12:10	03/22/17 12:30
HGWA-5	AAC0796-05	Ground Water	03/21/17 14:05	03/22/17 12:30
HGWA-6	AAC0796-06	Ground Water	03/21/17 15:05	03/22/17 12:30
HGWC-7	AAC0796-07	Ground Water	03/21/17 14:05	03/22/17 12:30
HGWC-8	AAC0796-08	Ground Water	03/21/17 15:20	03/22/17 12:30



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

Report No.: AAC0796

Client ID: HGWA-1

Date/Time Sampled: 3/21/2017 10:28:00AM

Matrix: Ground Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0796-01

Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	340	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:00	7030810	RLC
Fluoride	0.13	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 17:00	7030810	RLC
Sulfate	63	5.0	0.46	mg/L	EPA 300.0		5	03/27/17 10:16	03/28/17 12:39	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Arsenic	0.0005	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Barium	0.0275	0.0100	0.0003	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Boron	0.0187	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Calcium	106	25.0	0.522	mg/L	EPA 6020B		50	03/23/17 08:20	03/25/17 00:54	7030669	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/23/17 08:20	03/25/17 00:49	7030669	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 13:57	7030754	MTC



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

Client ID: HGWA-2

Report No.: AAC0796

Date/Time Sampled: 3/21/2017 11:00:00AM

Matrix: Ground Water

Project: CCR Event

Lab Number ID: AAC0796-02

Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	103	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	5.9	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:21	7030810	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:21	7030810	RLC
Sulfate	46	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:21	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Barium	0.0950	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Beryllium	0.0001	0.0030	0.00007	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Boron	0.0349	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Cadmium	0.00007	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Calcium	18.6	5.00	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 22:09	7030738	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Cobalt	0.0251	0.0100	0.0005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Lead	0.00006	0.0050	0.00005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Thallium	0.00003	0.0010	0.00003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Lithium	0.0012	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:03	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:00	7030754	MTC



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

Report No.: AAC0796 Client ID: HGWA-3

Date/Time Sampled: 3/21/2017 12:17:00PM

Matrix: Ground Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0796-03

Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	288	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	7.5	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:42	7030810	RLC
Fluoride	0.005	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 17:42	7030810	RLC
Sulfate	45	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 17:42	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Barium	0.120	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Boron	0.0079	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Calcium	75.7	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 22:32	7030738	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Lead	0.0001	0.0050	0.00005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Lithium	0.0034	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:26	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:02	7030754	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAC0796

Client ID: HGWA-4

Date/Time Sampled: 3/21/2017 12:10:00PM

Matrix: Ground Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0796-04

Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	132	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	4.3	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:02	7030810	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:02	7030810	RLC
Sulfate	1.7	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:02	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Barium	0.0175	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Boron	0.0101	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Calcium	34.0	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 22:43	7030738	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:37	7030738	CSW
Mercury	0.00016	0.00050	0.000041	mg/L	EPA 7470A	J	1	03/24/17 09:00	03/24/17 14:04	7030754	MTC



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Attention: Mr. Joju Abraham

Report No.: AAC0796 Client ID: HGWA-5

Date/Time Sampled: 3/21/2017 2:05:00PM

Matrix: Ground Water

Project: CCR Event

Lab Number ID: AAC0796-05

Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	144	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:23	7030810	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 18:23	7030810	RLC
Sulfate	23	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 18:23	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Barium	0.0453	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Calcium	30.8	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 22:55	7030738	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Lithium	0.0037	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 22:49	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:07	7030754	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Client ID: HGWA-6

Report No.: AAC0796

Date/Time Sampled: 3/21/2017 3:05:00PM

Matrix: Ground Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0796-06

Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	222	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	1.3	0.25	0.01	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 20:06	7030810	RLC
Fluoride	0.08	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 20:06	7030810	RLC
Sulfate	37	1.0	0.09	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 20:06	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Barium	0.186	0.0500	0.0013	mg/L	EPA 6020B		5	03/24/17 06:30	03/31/17 13:53	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Boron	0.0166	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Calcium	51.3	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 23:06	7030738	CSW
Chromium	0.0007	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Molybdenum	0.0002	0.0100	0.0002	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Lithium	0.0115	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:00	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:09	7030754	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAC0796 Client ID: HGWC-7

Date/Time Sampled: 3/21/2017 2:05:00PM

Matrix: Ground Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0796-07

Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	415	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	46	2.5	0.13	mg/L	EPA 300.0		10	03/27/17 10:16	03/28/17 13:21	7030810	RLC
Fluoride	0.13	0.30	0.004	mg/L	EPA 300.0	J	1	03/27/17 10:16	03/27/17 20:27	7030810	RLC
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	03/27/17 10:16	03/28/17 13:21	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Barium	0.0722	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Boron	0.857	0.0400	0.0060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Cadmium	0.0002	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Calcium	109	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 23:18	7030738	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Lead	0.00009	0.0050	0.00005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Molybdenum	0.0346	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Lithium	0.0026	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:12	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:11	7030754	MTC



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Attention: Mr. Joju Abraham

Report No.: AAC0796 Client ID: HGWC-8

Date/Time Sampled: 3/21/2017 3:20:00PM

Matrix: Ground Water

Project: CCR Event

Lab Number ID: AAC0796-08

Date/Time Received: 3/22/2017 12:30:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	818	25	10	mg/L	SM 2540 C		1	03/24/17 15:50	03/24/17 15:50	7030771	JPT
Inorganic Anions											
Chloride	110	2.5	0.13	mg/L	EPA 300.0		10	03/27/17 10:16	03/28/17 13:00	7030810	RLC
Fluoride	0.46	0.30	0.004	mg/L	EPA 300.0		1	03/27/17 10:16	03/27/17 20:47	7030810	RLC
Sulfate	240	10	0.92	mg/L	EPA 300.0		10	03/27/17 10:16	03/28/17 13:00	7030810	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Barium	0.0791	0.0100	0.0003	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Boron	2.08	0.0400	0.0060	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Cadmium	0.0002	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Calcium	148	25.0	0.522	mg/L	EPA 6020B		50	03/24/17 06:30	03/27/17 23:40	7030738	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Molybdenum	0.547	0.0100	0.0002	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Thallium	0.00009	0.0010	0.00003	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Lithium	0.0029	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/24/17 06:30	03/27/17 23:35	7030738	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 14:14	7030754	MTC



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Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0796

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030771 - SM 2540 C											
Blank (7030771-BLK1)						Prepar	ed & Analy	/zed: 03/2	4/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030771-BS1)						Prepar	ed & Analy	/zed: 03/2	4/17		
Total Dissolved Solids	399	25	10	mg/L	400.00		100	84-108			
Duplicate (7030771-DUP1)		Sou	ırce: AAC07	780-02		Prepar	ed & Analy	/zed: 03/2	4/17		
Total Dissolved Solids	254	25	10	mg/L		260			2	10	
Duplicate (7030771-DUP2)		Sou	ırce: AAC07	796-03		Prepar	ed & Analy	/zed: 03/2	4/17		
Total Dissolved Solids	260	25	10	mg/L		288	•		10	10	



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

Report No.: AAC0796

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 7030810 - EPA 300.0													
Blank (7030810-BLK1)						Prepare	ed & Analy	yzed: 03/27	7/17				
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 (7030810-BS1)						Prepare	ed & Analy	yzed: 03/27	7/17				
Chloride	9.29	0.25	0.01	mg/L	10.010		93	90-110					
Fluoride	9.77	0.30	0.004	mg/L	10.020		98	90-110					
Sulfate	9.50	1.0	0.09	mg/L	10.020		95	90-110					
Matrix Spike (7030810-MS1)		Soi	urce: AAC07	96-08		Prepare	ed & Analy	yzed: 03/27	7/17				
Chloride	99.2	0.25	0.01	mg/L	10.010	99.7	NR	90-110			QM-02		
Fluoride	11.0	0.30	0.004	mg/L	10.020	0.46	105	90-110					
Sulfate	186	1.0	0.09	mg/L	10.020	192	NR	90-110			QM-02		
Matrix Spike (7030810-MS2)		Soi	urce: AAC08	32-03		Prepared: 03/27/17 Analyzed: 03/28/17							
Chloride	17.2	0.25	0.01	mg/L	10.010	7.20	100	90-110					
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.09	106	90-110					
Sulfate	66.7	1.0	0.09	mg/L	10.020	63.1	36	90-110			QM-02		
		Source: AAC0796-08					Prepared & Analyzed: 03/27/17						
Matrix Spike Dup (7030810-MSD1)		So	urce: AAC07	'96-08		Prepare	ed & Anaiy	yzea: 03/2/	7/17				
Matrix Spike Dup (7030810-MSD1) Chloride	99.4	0.25	urce: AAC07 0.01	'96-08 mg/L	10.010	99.7	ed & Analy NR	90-110	7/17 0.2	15	QM-02		
	99.4 11.0				10.010 10.020		•			15 15	QM-02		



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAC0796

Metals, Total - Quality Control

Prepared & Analyzed: 03/23/17 Antimony ND	Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony ND 0,0030 0,0003 mg/L Ansenic ND 0,0050 0,0004 mg/L Berylium ND 0,0050 0,00007 mg/L Berylium ND 0,0003 0,00007 mg/L Cadmium ND 0,0000 0,0000 mg/L Cadmium ND 0,0000 0,0000 mg/L Cadmium ND 0,0000 0,0000 mg/L Calcium ND 0,0000 0,0000 mg/L Calcium ND 0,0000 0,0000 mg/L Cabalium 0,1000 0,1000 0,1000 0,100	Batch 7030669 - EPA 3005A	1										
Avsenic ND 0.0050 0.0004 mg/L Barlum ND 0.0000 0.00007 mg/L Barlum ND 0.0000 0.00007 mg/L Barlum ND 0.0000 0.00000 mg/L Cadmium ND 0.0010 0.00000 mg/L Cadmium ND 0.0010 0.00000 mg/L Cadmium ND 0.0010 0.00000 mg/L Calcium ND 0.0010 0.00003 mg/L Chromium ND 0.0100 0.0003 mg/L Copper ND 0.0250 0.0002 mg/L Copper ND 0.0250 0.0002 mg/L Cadmium ND 0.0000 0.0003 mg/L Copper ND 0.0050 0.0002 mg/L Copper ND 0.0050 0.00002 mg/L Copper ND 0.0000 0.0003 mg/L Copper ND 0.0000 0.0003 mg/L Copper ND 0.0000 0.0000 mg/L Copper 0.114 0.0000 0.0000 mg/L Copper 0.114 0.0000 0.0000 mg/L Copper 0.114 0.0000 0.0000 mg/L Copper 0.110 0.0000 0.0000 0.0000 mg/L Copper 0.110 0.0000 0.000	Blank (7030669-BLK1)						Prepar	ed & Analy	zed: 03/23	3/17		
Barium ND 0.0100 0.0003 mg/L	Antimony	ND	0.0030	0.0003	mg/L							
Beryllium	Arsenic	ND	0.0050	0.0004	mg/L							
Beron ND 0,040 0,080 mg/L Cadmium ND 0,010 0,00008 mg/L Cadmium ND 0,010 0,00008 mg/L Cadmium ND 0,050 0,0104 mg/L Chromium ND 0,010 0,000 mg/L Chromium ND 0,010 0,0003 mg/L Cobalt ND 0,0250 0,0002 mg/L Cadmium ND 0,0250 0,0002 mg/L Cadmium ND 0,050 0,0002 mg/L Cadmium ND 0,010 0,0003 mg/L Cadmium ND 0,000 0,0003 mg/L Cadmium ND 0,000 0,0003 mg/L Cadmium ND 0,000 0,0004 mg/L Cadmium ND 0,050 0,0001 mg/L Cadmium ND 0,050 0,0001 mg/L Cadmium ND 0,050 0,0001 mg/L Cadmium 0,000 103 80-120 Cadmium 0,010 0,0003 mg/L Cadmium 0,000 103 80-120 Cadmium 0,000 0,000 0,0004 mg/L 0,0000 103 80-120 Cadmium 0,000 0,000 0,0004 mg/L 0,0000 103 80-120 Cadmium 0,000 0,000 0,000 0,000 0,000 0 mg/L 0,0000 103 80-120 Cadmium 0,000 0,000 0,000 0 mg/L 0,0000 103 80-120 Cadmium 0,000 0,000 0,000 0 mg/L 0,0000 103 80-120 Cadmium 0,000 0,000 0,000 0 mg/L 0,0000 103 80-120 Cadmium 0,000 0,000 0 mg/L 0,0000 103 80-120 Cadmium 0,000 0,000 0 mg/L 0,0000 103 80-120 Cadmium 0,000 0,000 0 mg/L 0,000 0 103 80-120 Cadmium 0,103 0,000 0,000 0 mg/L 0,000 0 103 80-120 Cadmium 0,103 0,000 0 mg/L 0,000 0 103 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 100 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 100 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 100 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 100 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 100 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 100 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 100 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 100 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 100 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 110 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 110 80-120 Cadmium 0,100 0,000 0 mg/L 0,000 0 110 80-	Barium	ND	0.0100	0.0003	mg/L							
Cadinium ND 0.0010 0.00060 mg/L Calcium ND 0.500 0.0104 mg/L Chomium ND 0.0100 0.0003 mg/L Cobalt ND 0.0100 0.0003 mg/L Copper ND 0.0250 0.00025 mg/L Lead ND 0.0100 0.00025 mg/L Molybdenum ND 0.0100 0.0002 mg/L Nickel ND 0.0100 0.0003 mg/L Silver ND 0.0100 0.0003 mg/L Valadium ND 0.0100 0.0003 mg/L Visionium ND 0.0100 0.0003 mg/L Visionium ND 0.0100 0.0003 mg/L Visionium ND 0.0100 0.0001 mg/L Visionium ND 0.0100 0.0001 mg/L Visionium ND 0.0100 0.0001 mg/L Vi	Beryllium	ND	0.0030	0.00007	mg/L							
Calcium ND 0.500 0.0104 mg/L Chromium ND 0.0100 0.0003 mg/L Chromium ND 0.0100 0.0005 mg/L Copper ND 0.0250 0.0002 mg/L Copper ND 0.0250 0.0002 mg/L Lead ND 0.0050 0.00050 mg/L Nickel ND 0.0100 0.0002 mg/L Nickel ND 0.0100 0.0003 mg/L Selenium ND 0.0100 0.0003 mg/L Selenium ND 0.0100 0.0003 mg/L Thailium 0.0004 0.0010 0.0003 mg/L Lithium ND 0.0100 0.0003 mg/L Lithium ND 0.0100 0.0011 mg/L Lithium ND 0.0100 0.0011 mg/L Lithium ND 0.0100 0.0013 mg/L Lithium ND 0.0100 0.0013 mg/L Lithium ND 0.0100 0.0014 mg/L Lithium ND 0.0100 0.0013 mg/L Lithium ND 0.0100 0.0014 mg/L Lithium ND 0.0100 0.0013 mg/L Lithium ND 0.0100 0.0013 mg/L Lithium ND 0.0000 0.0003 mg/L Copper ND 0.0100 0.0003 mg/L 0.10000 114 80-120 Sear-lum 0.103 0.0100 0.0003 mg/L 0.10000 104 80-120 Sear-lum 0.103 0.0100 0.0000 mg/L 0.10000 107 80-120 Sear-lum 0.103 0.0100 0.0000 mg/L 0.10000 107 80-120 Sear-lum 0.103 0.0000 0.0000 mg/L 0.10000 107 80-120 Sear-lum 0.103 0.0000 0.0000 mg/L 0.10000 108 80-120 Cobalt 0.0098 0.0010 0.00000 mg/L 0.10000 103 80-120 Cobalt 0.0098 0.0010 0.00000 mg/L 0.10000 103 80-120 Cobalt 0.106 0.0100 0.0003 mg/L 0.10000 110 80-120 Cobalt 0.106 0.0100 0.0000 mg/L 0.10000 111 80-120 Cobalt	Boron	ND	0.0400	0.0060	mg/L							
Chromium ND 0.0100 0.0003 mg/L Cobalt ND 0.0100 0.0005 mg/L Cobalt ND 0.0205 0.0002 mg/L Cobalt ND 0.0250 0.0002 mg/L Cobalt ND 0.0250 0.0002 mg/L Cobalt ND 0.0250 0.0002 mg/L Cobalt ND 0.0050 0.0005 mg/L Cobalt ND 0.0004 ND 0.0003 mg/L Cobalt ND 0.0100 0.0004 mg/L Cobalt ND 0.0000 0.0014 mg/L Cobalt ND 0.0000 0.0014 mg/L Cobalt ND 0.0000 0.0014 mg/L 0.10000 114 80-120 MB-ranking ND 0.0000 0.0004 mg/L 0.10000 114 80-120 MB-ranking ND 0.0000 0.0000 mg/L 0.10000 115 80-120 MB-ranking ND 0.0000 0.00000 mg/L 0.10000 115 80-120 MB-ranking ND 0.0000 0.00000 mg/L 0.10000 115 80-120 MB-ranking ND 0.0000 0.00000 mg/L 0.10000 110 80-120 MB-ranking ND 0.0000 0.0000 mg/L 0.10000 110 80-120 MB-ranking ND 0.0000 0.00000 mg/L 0.10000 110 80-120 MB-ranking ND 0.0000 0.0	Cadmium	ND	0.0010	0.000060	mg/L							
Cobalt ND 0.0100 0.0005 mg/L Copper ND 0.0250 0.0002 mg/L Lead ND 0.0500 0.00005 mg/L Molybdenum ND 0.0100 0.0002 mg/L Nickel ND 0.0100 0.0003 mg/L Selenium ND 0.0100 0.0003 mg/L Silver ND 0.0100 0.0003 mg/L Thallium 0.0004 0.0010 0.0003 mg/L Vanadium ND 0.0100 0.0011 mg/L Validium ND 0.0100 0.0011 mg/L Lithium ND 0.0500 0.0011 mg/L Arismin ND 0.0500 0.0011 mg/L Arismin ND 0.0500 0.0001 mg/L 0.10000 114 80-120 LCS (703669-BS1) T Prepared & Analyzed: 03/23/17 0.0000 144 80-120 Arismin	Calcium	ND	0.500	0.0104	mg/L							
Copper ND 0.0250 0.0002 mg/L Lead ND 0.0050 0.00005 mg/L Nollyddenum ND 0.0100 0.0002 mg/L Nickel ND 0.0100 0.0003 mg/L Selenium ND 0.0100 0.0003 mg/L Silver ND 0.0100 0.0003 mg/L Thallium 0.0004 0.0100 0.0003 mg/L Vanadium ND 0.0100 0.0011 mg/L Zinc ND 0.0100 0.0011 mg/L LCS (7030669-BS1) Tepepared & Analyzed: 0.01203 mg/L LCS (7030669-BS1) Tepepared & Analyzed: 0.01203 mg/L Arsenic 0.104 0.0050 0.0004 mg/L 0.10000 104 80-120 Arsenic 0.104 0.0050 0.0004 mg/L 0.10000 103 80-120 Beryllium 0.107 0.0030 0.0007 mg/L 0.10000 103	Chromium	ND	0.0100	0.0003	mg/L							
Lead ND 0.0050 0.0005 mg/L Molybdenum ND 0.0100 0.0002 mg/L ND 0.0100 0.0002 mg/L ND 0.0100 0.0003 mg/L ND 0.0100 0.0004 mg/L 0.10000 114 80-120 ND 0.1000 0.0004 mg/L 0.10000 115 80-120 ND 0.0005 Mg/L 0.10000 110 80-120 ND 0.00	Cobalt	ND	0.0100	0.0005	mg/L							
Molybdenum ND	Copper	ND	0.0250	0.0002	mg/L							
Nickel ND 0.0100 0.0003 mg/L Selenium ND 0.0100 0.0003 mg/L Selenium ND 0.0100 0.0003 mg/L Selenium ND 0.0100 0.0003 mg/L Silver ND 0.0100 0.0003 mg/L Selenium ND 0.0004 0.00003 mg/L Selenium ND 0.0004 0.00003 mg/L Selenium ND 0.0100 0.0013 mg/L Selenium ND 0.0500 0.0011 mg/L 0.10000 114 80-120 Melanium ND 0.003 mg/L 0.10000 114 80-120 Melanium ND 0.003 mg/L 0.10000 103 80-120 Melanium ND 0.003 mg/L 0.10000 105 80-120 Melanium ND 0.0000 mg/L 0.00000 mg/L 0.10000 105 80-120 Melanium ND 0.0000 Mg/L 0.10000 106 80-120 Melanium ND 0.0000 Mg/L 0.10000 Mg/L	Lead	ND	0.0050	0.00005	mg/L							
Selenium ND 0.0100 0.0014 mg/L	Molybdenum	ND	0.0100	0.0002	mg/L							
Selenium ND	Nickel	ND	0.0100	0.0003								
Thallium 0.00004 0.0010 0.00003 mg/L Vanadium ND 0.0100 0.0014 mg/L Vanadium ND 0.0100 0.0013 mg/L Vanadium ND 0.0500 0.0011 mg/L Vanadium VAI 0.0000 0.0011 mg/L Vanadium VAI 0.0000 0.0001 mg/L 0.10000 114 80-120 VAI 0.0000 103 80-120 VAI 0.0000 103 80-120 VAI 0.0000 105 80-120 VAI 0.0000 105 80-120 VAI 0.0000 105 80-120 VAI 0.0000 105 80-120 VAI 0.00000 105 80-120 VAI 0.0000 105 80-120	Selenium	ND	0.0100	0.0014								
Thallium 0.0004 0.0010 0.0003 mg/L Vanadium ND 0.0100 0.0014 mg/L Vanadium ND 0.0100 0.0013 mg/L Vanadium ND 0.0100 0.0013 mg/L Vanadium ND 0.0500 0.0011 mg/L Vanadium ND 0.0500 0.0001 mg/L 0.10000 114 80-120 Vanadium ND 0.003 0.0003 mg/L 0.10000 104 80-120 Vanadium ND 0.0103 0.0003 mg/L 0.10000 103 80-120 Vanadium ND 0.098 0.0010 0.0003 mg/L 0.10000 107 80-120 Vanadium ND 0.0998 0.0010 0.00060 mg/L 0.10000 115 80-120 Vanadium ND 0.0998 0.0010 0.00060 mg/L 0.10000 110 80-120 Vanadium Vanadium ND 0.0098 0.0010 0.0003 mg/L 0.10000 110 80-120 Vanadium Va	Silver	ND	0.0100	0.0003	mg/L							
Vanadium ND 0.0100 0.0101 0.0013 mg/L Zinc ND 0.0100 0.0013 mg/L Lithium ND 0.0500 0.0011 mg/L LCS (7030669-BS1) Prepared & Analyzed: 03/23/17 Antimony 0.114 0.0030 0.0003 mg/L 0.10000 114 80-120 Arsenic 0.104 0.0050 0.0004 mg/L 0.10000 104 80-120 Beryllium 0.103 0.0100 0.0003 mg/L 0.10000 107 80-120 Boron 1.15 0.0400 0.0060 mg/L 0.10000 105 80-120 Caldmium 0.0998 0.0010 0.00060 mg/L 0.10000 103 80-120 Chromium 1.03 0.500 0.0144 mg/L 0.10000 103 80-120 Choper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Cobli	Thallium	0.00004	0.0010	0.00003								J
Prepared & Analyzed: 03/23/17	Vanadium	ND	0.0100	0.0014								
Prepared & Analyzed: 03/23/17	Zinc	ND	0.0100	0.0013								
Antimony 0.114 0.0030 0.0003 mg/L 0.10000 114 80-120 Arsenic 0.104 0.0050 0.0004 mg/L 0.10000 104 80-120 Barium 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Beryllium 0.107 0.0030 0.00007 mg/L 0.10000 107 80-120 Boron 1.15 0.0400 0.0060 mg/L 1.0000 115 80-120 Cadmium 0.0998 0.0010 0.00060 mg/L 1.0000 100 80-120 Calcium 1.03 0.500 0.0104 mg/L 1.0000 103 80-120 Chromium 0.110 0.0100 0.0003 mg/L 0.10000 103 80-120 Cobalt 0.106 0.0100 0.0005 mg/L 0.10000 110 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Molybdenum 0.106 0.0100 0.0005 mg/L 0.10000 110 80-120 Molybdenum 0.106 0.0100 0.0003 mg/L 0.10000 102 80-120 Molybdenum 0.111 0.0100 0.0002 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0003 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0003 mg/L 0.10000 111 80-120 Selenium 0.111 0.0100 0.0003 mg/L 0.10000 111 80-120 Selenium 0.111 0.0100 0.0003 mg/L 0.10000 111 80-120 Thallium 0.104 0.0010 0.0003 mg/L 0.10000 103 80-120 Vanadium 0.113 0.0100 0.00014 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 104 80-120	Lithium	ND	0.0500	0.0011								
Arsenic 0.104 0.0050 0.0004 mg/L 0.10000 104 80-120 Barium 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Beryllium 0.107 0.0030 0.00007 mg/L 0.10000 107 80-120 Boron 1.15 0.0400 0.0060 mg/L 1.0000 115 80-120 Cadmium 0.0998 0.0010 0.00060 mg/L 0.10000 100 80-120 Calcium 1.03 0.500 0.0104 mg/L 1.0000 103 80-120 Chromium 0.110 0.0100 0.0003 mg/L 0.10000 110 80-120 Chromium 0.110 0.0100 0.0005 mg/L 0.10000 110 80-120 Cobalt 0.106 0.0100 0.0005 mg/L 0.10000 110 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Chead 0.102 0.0050 0.00005 mg/L 0.10000 110 80-120 Molybdenum 0.106 0.0100 0.0005 mg/L 0.10000 110 80-120 Nickel 0.112 0.0100 0.0002 mg/L 0.10000 106 80-120 Nickel 0.112 0.0100 0.0003 mg/L 0.10000 116 80-120 Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 111 80-120 Vanadium 0.113 0.0100 0.0003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 108 80-120	LCS (7030669-BS1)						Prepar	ed & Analy	/zed: 03/23	3/17		
Barium 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Beryllium 0.107 0.0030 0.00007 mg/L 0.10000 107 80-120 Boron 1.15 0.0400 0.0060 mg/L 1.0000 115 80-120 Cadmium 0.0998 0.0010 0.000060 mg/L 0.10000 100 80-120 Calcium 1.03 0.500 0.0104 mg/L 1.0000 103 80-120 Chromium 0.110 0.0100 0.0003 mg/L 0.10000 110 80-120 Cobalt 0.106 0.0100 0.0005 mg/L 0.10000 106 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 102 80-120 Lead 0.102 0.0050 0.0002 mg/L 0.10000 102 80-120 Molybdenum 0.106 0.0100 0.0003 mg/L 0.10000 112 <td< td=""><td>Antimony</td><td>0.114</td><td>0.0030</td><td>0.0003</td><td>mg/L</td><td>0.10000</td><td></td><td>114</td><td>80-120</td><td></td><td></td><td></td></td<>	Antimony	0.114	0.0030	0.0003	mg/L	0.10000		114	80-120			
Beryllium 0.107 0.0030 0.00007 mg/L 0.10000 107 80-120 Boron 1.15 0.0400 0.0060 mg/L 1.0000 115 80-120 Cadmium 0.0998 0.0010 0.000060 mg/L 0.10000 100 80-120 Calcium 1.03 0.500 0.0104 mg/L 1.0000 103 80-120 Chromium 0.110 0.0100 0.0003 mg/L 0.10000 110 80-120 Cobalt 0.106 0.0100 0.0005 mg/L 0.10000 106 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Lead 0.102 0.0050 0.00005 mg/L 0.10000 102 80-120 Molybdenum 0.106 0.0100 0.0002 mg/L 0.10000 112 80-120 Nickel 0.112 0.0100 0.0003 mg/L 0.10000 111 <t< td=""><td>Arsenic</td><td>0.104</td><td>0.0050</td><td>0.0004</td><td>mg/L</td><td>0.10000</td><td></td><td>104</td><td>80-120</td><td></td><td></td><td></td></t<>	Arsenic	0.104	0.0050	0.0004	mg/L	0.10000		104	80-120			
Boron 1.15 0.0400 0.0060 mg/L 1.0000 115 80-120 Cadmium 0.0998 0.0010 0.00060 mg/L 0.10000 100 80-120 Calcium 1.03 0.500 0.0104 mg/L 1.0000 103 80-120 Chromium 0.110 0.0100 0.0003 mg/L 0.10000 110 80-120 Cobalt 0.106 0.0100 0.0005 mg/L 0.10000 110 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Cepper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Copper 0.110 0.0050 0.00005 mg/L 0.10000 110 80-120 Copper 0.110 0.0050 0.00005 mg/L 0.10000 102 80-120 Copper 0.110 0.0050 0.00005 mg/L 0.10000 102 80-120 Copper 0.111 0.0100 0.0002 mg/L 0.10000 106 80-120 Copper 0.112 0.0100 0.0003 mg/L 0.10000 111 80-120 Copper 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Copper 0.111 0.0100 0.0003 mg/L 0.10000 111 80-120 Copper 0.111 0.0100 0.0003 mg/L 0.10000 103 80-120 Copper 0.111 0.0100 0.0003 mg/L 0.10000 103 80-120 Copper 0.111 0.0100 0.0003 mg/L 0.10000 104 80-120 Copper 0.111 0.0100 0.0001 mg/L 0.10000 113 80-120 Copper 0.111 0.0100 0.0014 mg/L 0.10000 104 80-120 Copper 0.111 0.0111 0.	Barium	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Cadmium 0.0998 0.0010 0.000060 mg/L 0.10000 100 80-120 Calcium 1.03 0.500 0.0104 mg/L 1.0000 103 80-120 Chromium 0.110 0.0100 0.0003 mg/L 0.10000 110 80-120 Cobalt 0.106 0.0100 0.0005 mg/L 0.10000 110 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Lead 0.102 0.0050 0.00005 mg/L 0.10000 102 80-120 Molybdenum 0.106 0.0100 0.0002 mg/L 0.10000 106 80-120 Nickel 0.112 0.0100 0.0003 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0003 mg/L 0.10000 111 80-120 Thallium 0.104 0.0010 0.00003 mg/L 0.10000 104	Beryllium	0.107	0.0030	0.00007	mg/L	0.10000		107	80-120			
Calcium 1.03 0.500 0.0104 mg/L 1.0000 103 80-120 Chromium 0.110 0.0100 0.0003 mg/L 0.10000 110 80-120 Cobalt 0.106 0.0100 0.0005 mg/L 0.10000 106 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Lead 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Molybdenum 0.106 0.0100 0.0002 mg/L 0.10000 106 80-120 Nickel 0.112 0.0100 0.0003 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.0003 mg/L 0.10000 104 80-120 Vanadium 0.108 0.0100 0.0013 mg/L	Boron	1.15	0.0400	0.0060	mg/L	1.0000		115	80-120			
Chromium 0.110 0.0100 0.0003 mg/L 0.10000 110 80-120 Cobalt 0.106 0.0100 0.0005 mg/L 0.10000 106 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Lead 0.102 0.0050 0.00005 mg/L 0.10000 102 80-120 Molybdenum 0.106 0.0100 0.0002 mg/L 0.10000 106 80-120 Nickel 0.112 0.0100 0.0003 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.0003 mg/L 0.10000 104 80-120 Vanadium 0.108 0.0100 0.0013 mg/L 0.10000 108	Cadmium	0.0998	0.0010	0.000060	mg/L	0.10000		100	80-120			
Cobalt 0.106 0.0100 0.0005 mg/L 0.10000 106 80-120 Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Lead 0.102 0.0050 0.00005 mg/L 0.10000 102 80-120 Molybdenum 0.106 0.0100 0.0002 mg/L 0.10000 106 80-120 Nickel 0.112 0.0100 0.0003 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.0003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0013 mg/L 0.10000 108 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 <td< td=""><td>Calcium</td><td>1.03</td><td>0.500</td><td>0.0104</td><td>mg/L</td><td>1.0000</td><td></td><td>103</td><td>80-120</td><td></td><td></td><td></td></td<>	Calcium	1.03	0.500	0.0104	mg/L	1.0000		103	80-120			
Copper 0.110 0.0250 0.0002 mg/L 0.10000 110 80-120 Lead 0.102 0.0050 0.00005 mg/L 0.10000 102 80-120 Molybdenum 0.106 0.0100 0.0002 mg/L 0.10000 106 80-120 Nickel 0.112 0.0100 0.0003 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.0003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 108 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Chromium	0.110	0.0100	0.0003	mg/L	0.10000		110	80-120			
Lead 0.102 0.0050 0.00005 mg/L 0.10000 102 80-120 Molybdenum 0.106 0.0100 0.0002 mg/L 0.10000 106 80-120 Nickel 0.112 0.0100 0.0003 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.00003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Cobalt	0.106	0.0100	0.0005	mg/L	0.10000		106	80-120			
Molybdenum 0.106 0.0100 0.0002 mg/L 0.10000 106 80-120 Nickel 0.112 0.0100 0.0003 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.0003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Copper	0.110	0.0250	0.0002	mg/L	0.10000		110	80-120			
Nickel 0.112 0.0100 0.0003 mg/L 0.10000 112 80-120 Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.00003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0013 mg/L 0.10000 113 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Lead	0.102	0.0050	0.00005	mg/L	0.10000		102	80-120			
Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.00003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Molybdenum	0.106	0.0100	0.0002	mg/L	0.10000		106	80-120			
Selenium 0.111 0.0100 0.0014 mg/L 0.10000 111 80-120 Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.00003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Nickel	0.112	0.0100	0.0003	mg/L	0.10000		112	80-120			
Silver 0.103 0.0100 0.0003 mg/L 0.10000 103 80-120 Thallium 0.104 0.0010 0.00003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Selenium	0.111	0.0100	0.0014	mg/L	0.10000		111	80-120			
Thallium 0.104 0.0010 0.00003 mg/L 0.10000 104 80-120 Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Silver	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Vanadium 0.113 0.0100 0.0014 mg/L 0.10000 113 80-120 Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Thallium	0.104	0.0010	0.00003				104	80-120			
Zinc 0.108 0.0100 0.0013 mg/L 0.10000 108 80-120	Vanadium	0.113	0.0100	0.0014		0.10000		113	80-120			
·	Zinc	0.108	0.0100	0.0013	_	0.10000		108	80-120			
J	Lithium	0.112	0.0500	0.0011	mg/L	0.10000		112	80-120			



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

Report No.: AAC0796

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch 7030669 - EPA 3005A												
Matrix Spike (7030669-MS1)		So	urce: AAC074	41-02		Prepared: 03/23/17 Analyzed: 03/24/17						
Antimony	0.108	0.0030	0.0003	mg/L	0.10000	ND	108	75-125				
Arsenic	0.109	0.0050	0.0004	mg/L	0.10000	0.0012	108	75-125				
Barium	0.131	0.0100	0.0003	mg/L	0.10000	0.0330	98	75-125				
Beryllium	0.104	0.0030	0.00007	mg/L	0.10000	ND	104	75-125				
Boron	1.02	0.0400	0.0060	mg/L	1.0000	ND	102	75-125				
Cadmium	0.103	0.0010	0.000060	mg/L	0.10000	ND	103	75-125				
Calcium	32.8	25.0	0.522	mg/L	1.0000	32.0	77	75-125				
Chromium	0.115	0.0100	0.0003	mg/L	0.10000	0.0004	114	75-125				
Cobalt	0.111	0.0100	0.0005	mg/L	0.10000	ND	111	75-125				
Copper	0.109	0.0250	0.0002	mg/L	0.10000	0.0012	108	75-125				
Lead	0.0989	0.0050	0.00005	mg/L	0.10000	0.00007	99	75-125				
Molybdenum	0.104	0.0100	0.0002	mg/L	0.10000	0.0019	102	75-125				
Nickel	0.111	0.0100	0.0003	mg/L	0.10000	ND	111	75-125				
Selenium	0.111	0.0100	0.0014	mg/L	0.10000	ND	111	75-125				
Silver	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125				
Thallium	0.102	0.0010	0.00003	mg/L	0.10000	0.0001	101	75-125				
Vanadium	0.115	0.0100	0.0014	mg/L	0.10000	ND	115	75-125				
Zinc	0.116	0.0100	0.0013	mg/L	0.10000	0.0075	108	75-125				
Lithium	0.108	0.0500	0.0011	mg/L	0.10000	ND	108	75-125				
Matrix Spike Dup (7030669-MSD1)		80	urce: AAC074	-		Dropar	ad: 02/22/	17 Analyz	od: 02/24	/17		
Antimony	0.111	0.0030	0.0003	mg/L	0.10000	ND ND	111	75-125	2	20		
Arsenic	0.115	0.0050	0.0004	mg/L	0.10000	0.0012	114	75-125	5	20		
Barium	0.134	0.0100	0.0003	mg/L	0.10000	0.0330	101	75-125	2	20		
Beryllium	0.104	0.0030	0.00007	mg/L	0.10000	ND	104	75-125	0.7	20		
Boron	1.07	0.0400	0.0060	mg/L	1.0000	ND	107	75-125	5	20		
Cadmium	0.109	0.0010	0.000060	mg/L	0.10000	ND	107	75-125 75-125	5	20		
Calcium	32.9	25.0	0.522	mg/L	1.0000	32.0	83	75-125	0.2	20		
Chromium	0.117	0.0100	0.0003	mg/L	0.10000	0.0004	116	75-125	2	20		
Cobalt	0.117	0.0100	0.0005	mg/L	0.10000	0.0004 ND	117	75-125 75-125	5	20		
Copper	0.117	0.0250	0.0003	mg/L	0.10000	0.0012	111	75-125 75-125	3	20		
Lead	0.0999	0.0050	0.00005	_	0.10000	0.0007	100	75-125 75-125	1	20		
Molybdenum	0.108	0.0100	0.0003	mg/L mg/L	0.10000	0.00007	106	75-125 75-125	4	20		
Nickel	0.116	0.0100	0.0002	mg/L	0.10000	0.0019 ND	116	75-125 75-125	5	20		
Selenium	0.110	0.0100	0.0003		0.10000	ND	117	75-125 75-125	5	20		
Silver	0.117	0.0100	0.0003	mg/L	0.10000	ND	108	75-125 75-125	6	20		
Thallium	0.108	0.0100	0.0003	mg/L	0.10000			75-125 75-125		20 20		
	0.104	0.0010	0.00003	mg/L		0.0001	103		2			
Vanadium	0.115	0.0100		mg/L	0.10000	ND	115	75-125	0.3	20		
Zinc	0.115	0.0100	0.0013	mg/L	0.10000	0.0075	108	75-125	0.3	20		
Lithium	0.100	0.0500	0.0011	mg/L	0.10000	ND	106	75-125	2	20		



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAC0796

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 7030669 - EPA 3005A	1												
Post Spike (7030669-PS1)		So	urce: AAC07	41-02	Prepared: 03/23/17 Analyzed: 03/24/17								
Antimony	104			ug/L	100.00	0.151	104	80-120					
Arsenic	110			ug/L	100.00	1.18	109	80-120					
Barium	133			ug/L	100.00	33.0	100	80-120					
Beryllium	106			ug/L	100.00	0.0034	106	80-120					
Boron	1080			ug/L	1000.0	5.52	108	80-120					
Cadmium	104			ug/L	100.00	0.0167	104	80-120					
Calcium	32900			ug/L	1000.0	32000	84	80-120					
Chromium	113			ug/L	100.00	0.445	113	80-120					
Cobalt	111			ug/L	100.00	0.175	111	80-120					
Copper	110			ug/L	100.00	1.23	109	80-120					
Lead	97.7			ug/L	100.00	0.0685	98	80-120					
Molybdenum	105			ug/L	100.00	1.90	103	80-120					
Nickel	112			ug/L	100.00	0.246	112	80-120					
Selenium	116			ug/L	100.00	0.0886	115	80-120					
Silver	105			ug/L	100.00	0.0117	105	80-120					
Thallium	99.5			ug/L	100.00	0.129	99	80-120					
Vanadium	116			ug/L	100.00	0.724	115	80-120					
Zinc	116			ug/L	100.00	7.48	108	80-120					
Lithium	109			ug/L	100.00	0.514	109	80-120					
Batch 7030738 - EPA 3005A	1												
Blank (7030738-BLK1)						Prepar	ed: 03/24/	17 Analyz	ed: 03/27/	17			
Antimony	ND	0.0030	0.0003	mg/L		- 1							
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 Thallium	ND ND	0.0100 0.0010	0.0003	mg/L mg/L									



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

Report No.: AAC0796

April 03, 2017

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030738 - EPA 3005A											
Blank (7030738-BLK1)						Prepare	ed: 03/24/	17 Analyz	ed: 03/27/	17	
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7030738-BS1)						Prepare	ed: 03/24/	17 Analyz	ed: 03/27/	17	
Antimony	0.104	0.0030	0.0003	mg/L	0.10000		104	80-120			
Arsenic	0.0980	0.0050	0.0004	mg/L	0.10000		98	80-120			
Barium	0.0966	0.0100	0.0003	mg/L	0.10000		97	80-120			
Beryllium	0.101	0.0030	0.00007	mg/L	0.10000		101	80-120			
Boron	0.985	0.0400	0.0060	mg/L	1.0000		98	80-120			
Cadmium	0.102	0.0010	0.000060	mg/L	0.10000		102	80-120			
Calcium	0.996	0.500	0.0104	mg/L	1.0000		100	80-120			
Chromium	0.107	0.0100	0.0003	mg/L	0.10000		107	80-120			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Copper	0.105	0.0250	0.0002	mg/L	0.10000		105	80-120			
Lead	0.0974	0.0050	0.00005	mg/L	0.10000		97	80-120			
Molybdenum	0.107	0.0100	0.0002	mg/L	0.10000		107	80-120			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Selenium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Silver	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Thallium	0.0985	0.0010	0.00003	mg/L	0.10000		98	80-120			
Vanadium	0.108	0.0100	0.0014	mg/L	0.10000		108	80-120			
Zinc	0.101	0.0100	0.0013	mg/L	0.10000		101	80-120			
Lithium	0.110	0.0500	0.0011	mg/L	0.10000		110	80-120			
Matrix Spike (7030738-MS1)		So	urce: AAC079	96-02		Prepare	ed: 03/24/	17 Analyz	ed: 03/27/	17	
Antimony	0.103	0.0030	0.0003	mg/L	0.10000	ND.	103	75-125			
Arsenic	0.101	0.0050	0.0004	mg/L	0.10000	ND	101	75-125			
Barium	0.243	0.0100	0.0003	mg/L	0.10000	0.0950	148	75-125			QM-02
Beryllium	0.101	0.0030	0.00007	mg/L	0.10000	0.0001	101	75-125			
Boron	1.00	0.0400	0.0060	mg/L	1.0000	0.0349	97	75-125			
Cadmium	0.104	0.0010	0.000060	mg/L	0.10000	0.00007	104	75-125			
Calcium	20.1	25.0	0.522	mg/L	1.0000	18.6	157	75-125			QM-02, J
Chromium	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125			,
Cobalt	0.127	0.0100	0.0005	mg/L	0.10000	0.0251	102	75-125			
Copper	0.0995	0.0250	0.0002	mg/L	0.10000	0.0004	99	75-125			
Lead	0.0937	0.0050	0.00005	mg/L	0.10000	0.00006	94	75-125			
Molybdenum	0.108	0.0100	0.0002	mg/L	0.10000	ND	108	75-125			
Nickel	0.104	0.0100	0.0003	mg/L	0.10000	0.0035	100	75-125			
Selenium	0.102	0.0100	0.0014	mg/L	0.10000	ND	102	75-125			
Silver	0.106	0.0100	0.0003	mg/L	0.10000	ND	106	75-125			
Silver	0.100	0.0100	0.0003	my/L	0.10000	טאו	100	10-120			



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

Report No.: AAC0796

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030738 - EPA 3005A											
Matrix Spike (7030738-MS1)		So	urce: AAC07	96-02		Prepare					
Thallium	0.0969	0.0010	0.00003	mg/L	0.10000	0.00003	97	75-125			
Vanadium	0.108	0.0100	0.0014	mg/L	0.10000	ND	108	75-125			
Zinc	0.103	0.0100	0.0013	mg/L	0.10000	0.0067	96	75-125			
Lithium	0.109	0.0500	0.0011	mg/L	0.10000	0.0012	108	75-125			
Matrix Spike Dup (7030738-MSD1)		So	urce: AAC07		Prepare	ed: 03/24/	17 Analyz	ed: 03/27/	′17		
Antimony	0.103	0.0030	0.0003	mg/L	0.10000	ND	103	75-125	0.6	20	
Arsenic	0.101	0.0050	0.0004	mg/L	0.10000	ND	101	75-125	0.1	20	
Barium	0.238	0.0100	0.0003	mg/L	0.10000	0.0950	143	75-125	2	20	QM-02
Beryllium	0.104	0.0030	0.00007	mg/L	0.10000	0.0001	104	75-125	3	20	
Boron	0.991	0.0400	0.0060	mg/L	1.0000	0.0349	96	75-125	1	20	
Cadmium	0.104	0.0010	0.000060	mg/L	0.10000	0.00007	104	75-125	0.4	20	
Calcium	19.5	25.0	0.522	mg/L	1.0000	18.6	93	75-125	3	20	J
Chromium	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	1	20	
Cobalt	0.128	0.0100	0.0005	mg/L	0.10000	0.0251	103	75-125	1	20	
Copper	0.103	0.0250	0.0002	mg/L	0.10000	0.0004	102	75-125	3	20	
Lead	0.0967	0.0050	0.00005	mg/L	0.10000	0.00006	97	75-125	3	20	
Molybdenum	0.110	0.0100	0.0002	mg/L	0.10000	ND	110	75-125	2	20	
Nickel	0.107	0.0100	0.0003	mg/L	0.10000	0.0035	104	75-125	4	20	
Selenium	0.104	0.0100	0.0014	mg/L	0.10000	ND	104	75-125	1	20	
Silver	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125	3	20	
Thallium	0.100	0.0010	0.00003	mg/L	0.10000	0.00003	100	75-125	3	20	
Vanadium	0.110	0.0100	0.0014	mg/L	0.10000	ND	110	75-125	2	20	
Zinc	0.106	0.0100	0.0013	mg/L	0.10000	0.0067	99	75-125	3	20	
Lithium	0.112	0.0500	0.0011	mg/L	0.10000	0.0012	111	75-125	3	20	
Post Spike (7030738-PS1)		So	urce: AAC07	96-02		Prepare	ed: 03/24/	17 Analyz	ed: 03/27/	17	
Antimony	105			ug/L	100.00	0.0435	105	80-120			
Arsenic	102			ug/L	100.00	0.288	102	80-120			
Barium	244			ug/L	100.00	95.0	149	80-120			QM-02
Beryllium	98.9			ug/L	100.00	0.102	99	80-120			
Boron	973			ug/L	1000.0	34.9	94	80-120			
Cadmium	109			ug/L	100.00	0.0678	109	80-120			
Calcium	19300			ug/L	1000.0	18600	75	80-120			QM-02
Chromium	110			ug/L	100.00	0.166	109	80-120			
Cobalt	133			ug/L	100.00	25.1	108	80-120			
Copper	103			ug/L	100.00	0.372	103	80-120			
Lead	95.8			ug/L	100.00	0.0583	96	80-120			
Molybdenum	110			ug/L	100.00	0.0712	110	80-120			
Nickel	110			ug/L	100.00	3.52	107	80-120			



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

Mercury

Attention: Mr. Joju Abraham

Report No.: AAC0796

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 7030738 - EPA 3005A													
Post Spike (7030738-PS1)		Soi	ırce: AAC07	96-02		Prepare	ed: 03/24/	17 Analyz	ed: 03/27	/17			
Selenium	101			ug/L	100.00	-0.0331	101	80-120					
Silver	103			ug/L	100.00	0.0046	103	80-120					
Thallium	97.8			ug/L	100.00	0.0328	98	80-120					
Vanadium	111			ug/L	100.00	-0.185	111	80-120					
Zinc	107			ug/L	100.00	6.73	100	80-120					
Lithium	108			ug/L	100.00	1.18	107	80-120					
Batch 7030754 - EPA 7470A													
Blank (7030754-BLK1)						Prepared & Analyzed: 03/24/17							
Mercury	ND	0.00050	0.000041	mg/L									
LCS (7030754-BS1)						Prepared & Analyzed: 03/24/17							
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3		95	80-120					
Matrix Spike (7030754-MS1)		Soi	ırce: AAC07	70-01		Prepared & Analyzed: 03/24/17							
Mercury	0.00232	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125					
Matrix Spike Dup (7030754-MSD1)	Source: AAC0770-01						ed & Analy	/zed: 03/24	1/17				
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	3	20			
Post Spike (7030754-PS1)	Source: AAC0770-01						Prepared & Analyzed: 03/24/17						

ug/L

1.6667

0.00818

80-120

1.64



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 April 03, 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.



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

April 03, 2017

Report Notes

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR

10-1282102

20-12802102

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

CHAIN OF CUSTODY RECORD

ö PAGE:

5 - NaOH/ZnAc, ≤6°C 7 - ≤6°C not frozen 6 - Na₂S₂O₃, ≤6°C REMARKS/ADDITIONAL INFORMATION 2 - H₂SO₄, ≤6°C 4 - NaOH, ≤6°C P - PRODUCT PRESERVATION 1. HCl, ≤6°C SL - SLUDGE L- LIQUID anos ·as 3- HNO3 S- SOIL A- AIR "MATRIX CODES: SW - SURFACE WATER DRINKING WATER GW - GROUNDWATER ST - STORM WATER WW - WASTEWATER A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE S - STERILE O - OTHER V - VOA VIAL P - PLASTIC W- WATER #8 3400 te 22 J < 0 ~0 ZJEOUC ANALYSIS REQUESTED (OZE6/SIE6 978-WS) က 8SS & 3SS muibs9 EPA 300.0 & SM 2540C) CI, F, 50, & TDS (0T4T/0S08 A93) ۵. Vi & III .qqA TZS ha9 elateM CONTAINER TYPE: PRESERVATION: to# ന n ෆ laburch@southernco.com 570 SAMPLE IDENTIFICATION Heath McCorkle HGWA-5 HGWA-6 HGWC& HGWA-3 HGWC-7 HGWA-2 HGWA-4 Maria Padilla HGWA-1 DATE/TIME: DATE/TIME: Plant Hammond - AP 182 ర్ర CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: × × × OOZe SAMPLED BY AND TITLE ME M.Burch MATRIX CODE* REQUESTED COMPLETION DATE: ₹ ≩ ₹ ₹ ₹ ₹ 3 ₹ 241 Ralph McGill Blvd SE B10185 Lauren Petty Collection TIME PROJECT NAME/STATE 15:05 14:05 18 12:10 4:06 15:20 10:28 12:17 Allanta, GA 30308 W.Virgo W/P RECEIVED BY: CLIENT NAME Seorgia Power 404-506-7239 REPORT TO PROJECT #: Collection DATE 03/21/17 03/21/17 03/21/17 03/21/17 03/21/17 71/12/20 03/21/17 03/21/17

FS

OTHER

2017 03 21Hammond COCs.xlsx

Broken Not Present

SAMPLE SHIPPED VIA UPS FED EX

1818/182

/ ONIn

Page 21 of 22

DATE/TIME



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

LOG-IN CHECKLIST

Printed: 3/23/2017 9:08:24AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AAC0796

Date Received: 03/22/17 12:30 Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 8 **#Containers:** 32

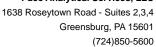
Minimum Temp(C): 1.0 Maximum Temp(C): 1.0 Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	NO
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR





April 14, 2017

Maria Padilla **GA Power** 2480 Maner Rd Atlanta, GA 30339

RE: Project: AAC0796 Plant Hammond

Pace Project No.: 30213982

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on March 23, 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

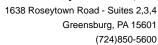
Sugnely Sellins

jacquelyn.collins@pacelabs.com

(724)850-5612 **Project Manager**

Enclosures







CERTIFICATIONS

Project: AAC0796 Plant Hammond

Pace Project No.: 30213982

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

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

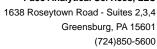
Tennessee Certification #: TN2867

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

Virginia/VELAP Certification #: 460198 Washington Certification #: C868 West Virginia DEP Certification #: 143 West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L



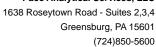


SAMPLE SUMMARY

Project: AAC0796 Plant Hammond

Pace Project No.: 30213982

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30213982001	HGWA-1	Water	03/21/17 10:28	03/23/17 09:40
30213982002	HGWA-2	Water	03/21/17 11:00	03/23/17 09:40
30213982003	HGWA-3	Water	03/21/17 12:17	03/23/17 09:40
30213982004	HGWA-4	Water	03/21/17 12:10	03/23/17 09:40
30213982005	HGWA-5	Water	03/21/17 14:05	03/23/17 09:40
30213982006	HGWA-6	Water	03/21/17 15:05	03/23/17 09:40
30213982007	HGWC-7	Water	03/21/17 14:05	03/23/17 09:40
30213982008	HGWC-8	Water	03/21/17 16:20	03/23/17 09:40





SAMPLE ANALYTE COUNT

Project: AAC0796 Plant Hammond

Pace Project No.: 30213982

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30213982001	HGWA-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
30213982002	HGWA-2	EPA 9315	LAL	1
		EPA 9320	JLW	1
30213982003	HGWA-3	EPA 9315	LAL	1
		EPA 9320	JLW	1
30213982004	HGWA-4	EPA 9315	LAL	1
		EPA 9320	JLW	1
30213982005	HGWA-5	EPA 9315	LAL	1
		EPA 9320	JLW	1
30213982006	HGWA-6	EPA 9315	LAL	1
		EPA 9320	JLW	1
30213982007	HGWC-7	EPA 9315	LAL	1
		EPA 9320	JLW	1
30213982008	HGWC-8	EPA 9315	LAL	1
		EPA 9320	JLW	1



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0796 Plant Hammond

Pace Project No.: 30213982	2					
Sample: HGWA-1 PWS:	Lab ID: 302139 Site ID:	82001 Collected: 03/21/17 10:28 Sample Type:	Received:	03/23/17 09:40 M	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0645 ± 0.111 (0.248)	pCi/L	04/03/17 09:51	13982-63-3	
Radium-228	EPA 9320	C:76% T:NA 0.751 ± 0.613 (1.25) C:74% T:84%	pCi/L	04/06/17 13:30	15262-20-1	
Total Radium	Total Radium Calculation	0.816 ± 0.724 (1.50)	pCi/L	04/14/17 13:08	7440-14-4	
Sample: HGWA-2 PWS:	Lab ID: 302139 / Site ID:	82002 Collected: 03/21/17 11:00 Sample Type:	Received:	03/23/17 09:40 M	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.174 ± 0.132 (0.215)	pCi/L	04/03/17 12:58	13982-63-3	
Radium-228	EPA 9320	C:88% T:NA 0.393 ± 0.390 (0.810) C:80% T:98%	pCi/L	04/06/17 13:30	15262-20-1	
Total Radium	Total Radium Calculation	0.567 ± 0.522 (1.03)	pCi/L	04/14/17 13:08	7440-14-4	
Sample: HGWA-3 PWS:	Lab ID: 302139 Site ID:	82003 Collected: 03/21/17 12:17 Sample Type:	Received:	03/23/17 09:40 M	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0204 ± 0.0887 (0.234)	pCi/L	04/03/17 13:05	13982-63-3	
Radium-228	EPA 9320	C:76% T:NA 0.338 ± 0.477 (1.03) C:76% T:88%	pCi/L	04/06/17 13:30	15262-20-1	
Total Radium	Total Radium Calculation	0.358 ± 0.566 (1.26)	pCi/L	04/14/17 13:08	7440-14-4	
Sample: HGWA-4 PWS:	Lab ID: 302139 Site ID:	82004 Collected: 03/21/17 12:10 Sample Type:	Received:	03/23/17 09:40 M	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0347 ± 0.0512 (0.204)	pCi/L	04/03/17 13:05	13982-63-3	
Radium-228	EPA 9320	C:88% T:NA 0.0740 ± 0.416 (0.945)	pCi/L	04/06/17 13:30	15262-20-1	
Total Radium	Total Radium Calculation	C:77% T:89% 0.0740 ± 0.467 (1.15)	pCi/L	04/14/17 13:08	7440-14-4	
Sample: HGWA-5 PWS:	Lab ID: 302139 Site ID:	82005 Collected: 03/21/17 14:05 Sample Type:	Received:	03/23/17 09:40 M	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0599 ± 0.0977 (0.215)	pCi/L	04/03/17 13:05		
Radium-228	EPA 9320	C:87% T:NA -0.220 ± 0.335 (0.828) C:79% T:83%	pCi/L	04/06/17 12:29	15262-20-1	

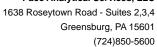


ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0796 Plant Hammond

Calculation

Pace Project No.: 30213982 Sample: HGWA-5 Lab ID: 30213982005 Collected: 03/21/17 14:05 Received: 03/23/17 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 0.0599 ± 0.433 (1.04) 04/14/17 13:08 pCi/L 7440-14-4 Calculation Sample: HGWA-6 Lab ID: 30213982006 Collected: 03/21/17 15:05 Received: 03/23/17 09:40 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.136 \pm 0.117 \quad (0.199)$ Radium-226 pCi/L 04/03/17 13:05 13982-63-3 C:88% T:NA Radium-228 EPA 9320 $0.00297 \pm 0.288 \quad (0.669)$ pCi/L 04/06/17 12:29 15262-20-1 C:76% T:101% Total Radium Total Radium 0.139 ± 0.405 (0.868) pCi/L 04/14/17 13:08 7440-14-4 Calculation Sample: HGWC-7 Lab ID: 30213982007 Collected: 03/21/17 14:05 Received: 03/23/17 09:40 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.114 \pm 0.114 \quad (0.206)$ Radium-226 04/03/17 13:05 13982-63-3 pCi/L C:85% T:NA EPA 9320 0.554 ± 0.355 Radium-228 (0.673)pCi/L 04/06/17 12:27 15262-20-1 C:81% T:88% Total Radium Total Radium $0.668 \pm 0.469 \quad (0.879)$ pCi/L 04/14/17 13:08 7440-14-4 Calculation Sample: HGWC-8 Lab ID: 30213982008 Collected: 03/21/17 16:20 Received: 03/23/17 09:40 Matrix: Water PWS: Site ID: Sample Type: Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 0.335 ± 0.173 (0.221) Radium-226 pCi/L 04/03/17 13:05 13982-63-3 C:86% T:NA EPA 9320 $0.516 \pm 0.360 \quad (0.696)$ Radium-228 pCi/L 04/06/17 12:26 15262-20-1 C:79% T:88% Total Radium Total Radium $0.851 \pm 0.533 \quad (0.917)$ pCi/L 04/14/17 13:08 7440-14-4





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0796 Plant Hammond

Pace Project No.: 30213982

QC Batch: 253453 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30213982001, 30213982002, 30213982003, 30213982004, 30213982005, 30213982006, 30213982007,

30213982008

METHOD BLANK: 1247540 Matrix: Water

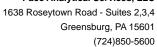
Associated Lab Samples: 30213982001, 30213982002, 30213982003, 30213982004, 30213982005, 30213982006, 30213982007,

30213982008

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.0167 \pm 0.0727 (0.192) C:92% T:NA pCi/L 04/03/17 21:59

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0796 Plant Hammond

Pace Project No.: 30213982

QC Batch: 253473 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30213982001, 30213982002, 30213982003, 30213982004, 30213982005, 30213982006, 30213982007,

30213982008

METHOD BLANK: 1247572 Matrix: Water

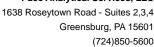
Associated Lab Samples: 30213982001, 30213982002, 30213982003, 30213982004, 30213982005, 30213982006, 30213982007,

30213982008

Parameter Act \pm Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.0392 \pm 0.312 (0.719) C:77% T:82% pCi/L 04/06/17 12:28

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.





QUALIFIERS

Project: AAC0796 Plant Hammond

Pace Project No.: 30213982

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

Date: 04/14/2017 02:39 PM

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#:30213982

3007 A 20 A	

Chain of Custody

Pace Analytical *

LAB USE ONLY 3-23-17/ 494/もJulS deliverable required (EDD 7564). 000 000 13 9 Results Requested By: 4/14/2017 803 200 Comments Requested Analysis Date/Time, Radium 226, 228, Total × × × × × × × Owner Received Date: Preserved Containers ниоз 7 7 7 7 7 DINGERTHOLD Matrix ĕ Ø 8 ĕ <u>≽</u> ĕ ĕ 8 Received By AAC0796-02 AAC0796-03 AAC0796-04 AAC0796-05 AAC0796-06 AAC0796-07 AAC0796-08 AAC0796-01 Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Date/Time Collect Date/Time Lab ID Pace - Pittsburgh Subcontract To: 3/21/2017 15:05 3/21/2017 14:05 3/21/2017 11:00 3/21/2017 14:05 3/21/2017 10:28 3/21/2017 12:17 3/21/2017 12:10 3/21/2017 16:20 Stes. 2,3,4 Workorder Name: Type Sample G G G G ŋ ŋ G Peachtree Corners, GA 30092 Workorder: AAC0796 110 Technology Parkway Pace Analytical Atlanta Phone (770)-734-4200 Transfers |Released By **Betsy McDaniel** Sample ID HGWA-3 HGWA-6 HGWA-2 HGWA-4 HGWA-5 HGWC-7 HGWC-8 HGWA-1 Report To: ltem| 10 9 ∞

Sample Intact Flor 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 Received on Ice Y of N This chain of custody is considered complete as is since this information is available in the owner laboratory. Custody Seal Y or (N ပ **Cooler Temperature on Receipt**

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Page 10 of 14

10-12801102 Seel IDS:

20-12802102

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

CV 00 O M CV

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CLIENT NAME:	Total Company of the	Among and the Am				The state of the s		MALYS	ANALYSIS REQUESTED	9		77	CONTAINER TYPE	PRESERVATION
Georgia Power					CONTANE	TANER TYPE:	_	a.				200		1. HG. 58°C
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	ESSIPHON	E NUMBER	YFAX I		PRESERVATIONE	ğ	 -	┝				00	A - AMBER GLASS	2 - H ₂ SO ₆ , ≤6°C
241 Ralph McGIII Blvd SE B10185	III Blvd SE	810185			\$0			 -					G - CLEAR GLASS	3- HNO3
Atlanta, GA 30308	808						etrokodow	2000				176 3/1	V - VOA VIAL	4 - NaOH, S6°C
404-508-7239					o —								S- STERILE	5 - NaOH/ZnAc, <6°C
REPORT TO:				CC: Maria Padilla	0							o	O-01拍R	6 - Na ₂ S ₂ O ₃ , <6°C
	Laumen Petty	etty		Fleath McCorkie	z									7 - 56°C not frozen
REQUESTED COMPLETION DATE:	COMPLETI	ON DATE:		PO #:	۲۹	<i>(</i> 1)	A					2:	*MATRIX	MATRIX COPES:
PROJECT NAME/STATE:	ME/STATE:				_	•	(I AD	(;				2		
			farmma	Plant Hammond - AP 18.2	Zu	411 ~~	m .qq	1				<u>м</u> ш	DW - DRINKING WATER MW - WASTEWATER	SI- SLUDGE
PROJECT #:				ccR	民的		(0447	8 SM				NAME OF TAXABLE PARTY.	GW - GROUNDWATER SW - SURFACE WATER	SD- SOUD A- AIR
Collection	Collection	MATRX CODE:	00≥	G R SAMPLE IDENTIFICATION			tala Part 9A 6020) F, SO, 3	0.005 Ac SS mulb 98 848-W					ST - STORM WATER W - WATER	L - LIQUID P - PRODUCT
				8	•		13)	(E) 19				•	REMARKS/ADDITIO	REMARKS/ADDITIONAL INFORMATION
CS/21/17	10:28	W		X HGWA-1	8		ę.a.	den den						
03/21/17	11:00	W		X HGWA-2	3		-	1 1				1		
03/21/17	12:17	A		X HGWA-3	3		~	1				9		
CS/21/17	12:10	A		X HSWA-4	က		-	1				<i>*************************************</i>		
03/21/17	14:05	M		X HGWA-6	က		42	*				8		
03/21/17	15:05	W		X HGWA-6	ဇ		Ç	~				Ø		
03/21/17	14:05	M		X HGWC-7	က		-	<u>-</u>				4		
03/21/17	15:20	M		X HGWC-8	က		4-	-				90		Walker and the second s
												然		
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	oon Account								•					
SAMPLED BY AND TITLE ME MEUCH WYING WAY	AND TITL	E MO M.B. T.Thomas	/g	- DATE/THE 7 1520		RELINQUISHED BY:	1	EEM	7	DATE/TIME:	1 1	2632	LAB # Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	DOTO:
RECEIVED BY	.:			DATE/TIME:	RELIN	OUISHE	: 6	`		DATETIME	نن		Enterned Info LIMS:	
16/18/2018	32	mound		25.6	ole Sch		SHPFED-VIA	SAST	Agando .		OTHER.	20	Tracking &:	/
%	¥	25 No. 35	2	Emperature / 6 hax		Broken	. Not Present	Tresent	Segon of the segon					
) .)) -)	775	US 211	Jammo	2017 US 21Hammond COCS.XISX					

Sample Condition Upon Receipt Pittsburgh

ANV

Page Analytical C	Client Name:		F	ace	e, Gt	}		Project # <u>30 2 1 3 9 8</u>
Courier: Fed Ex U	PS	t 🗆	Comm	ercial	☐ F	ace Oth	er	
Custody Seal on Cooler/Bo	ox Present: yes	Щ	no	Seals	s intact:	∟ ye	s L] no
Thermometer Used	<u> </u>	Туре				· (/		°C
Cooler Temperature O	bserved Temp		°C	Corr	ection	Factor:		°C Final Temp:
Temp should be above freezing	to 6°C							Date and Initials of person examining
		Yes	No	N/A	٦			contents: (1911) 5-23
Comments:		V	140	14//	1.			
Chain of Custody Present:					2.			
Chain of Custody Filled Out:								
Chain of Custody Relinquish		\Diamond			3.			
Sampler Name & Signature	on COC:	\Diamond			4.			
Sample Labels match COC:				l	5.			
Includes date/time/ID	Matrix:V	$\langle \cdot \rangle$		Τ	 			
Samples Arrived within Hold	Time:	X			6.			
Short Hold Time Analysis ((<72hr remaining):		X		7.			
Rush Turn Around Time R		اا	人		8.			·
Sufficient Volume:		X			9.			<u> </u>
Correct Containers Used:		义			10.			
-Pace Containers Used:		X						
Containers Intact:		X			11.			
Orthophosphate field filtered				义	12			
Organic Samples checked				X	13.			
Filtered volume received for				X	14.	<u>.</u>		
All containers have been checken	ed for preservation.	X			15.		7	
All containers needing preservat	ion are found to be in	X]	PHL	,6	
compliance with EPA recommen	dation.				Initial w	hen Ala	na	Date/time of
exceptions: VOA, coliform,	TOC, O&G, Phenolics		,		comple	ted UT	1	preservation
•					Lot # of	f added vative		
	2			V	16.			
Headspace in VOA Vials (>6	omin);	1	X		17.			
Trip Blank Present:	t		/>	X	1			
Trip Blank Custody Seals Pro Rad Aqueous Samples Scr	esent eened > 0.5 mrem/hr		X		Initial w		nh	Date: 3-23-17
Client Notification/ Resolut	tion:							
Person Contacted:			<u>.</u>	Date/	Time:			Contacted By:
Comments/ Resolution:								
A check in this box	k indicates that addi	tional	infor	matio	n has	been sto	ored 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.

Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date:

Sample MSD I.D.

Sample MS I.D.

		Sample Matrix Spike Control Assessment	ö		
Ra-226	LAL	3/31/2017	34821	DW	
Test:	Analyst:	Date:	Worklist:	Matrix:	

⊆	lethod Blank Assessment	MB Sample ID 1247540	MB concentration: 0.017	M/B Counting Uncertainty: 0.073	MB MDC: 0.192	MB Numerical Performance Indicator: 0.45	MB Status vs Numerical Indicator:	MB Status vs. MDC: / Pass
---	-------------------------	----------------------	-------------------------	---------------------------------	---------------	--	-----------------------------------	---------------------------

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL):

LCS3482

Laboratory Control Sample Assessment

17-003

Spike I.D.

Spike Concentration (pCi/mL):

Volume Used (mL):

Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F):

Uncertainty (Calculated): Result (pCi/L, g, F):

LCS/LCSD Counting Uncertainty (pCi/L, g, F): Numerical Performance Indicator: Percent Recovery:

Status vs Numerical Indicator:

Status vs Recovery

Duplicate Sample Assessment

	(1)
	MS Aliquot (L, g, F):
	MS Target Conc.(pCi/L, g, F):
	MSD Aliquot (L, g, F):
1	MSD Target Conc. (pCl/L, g, F):
Z	Spike uncertainty (calculated):
LCSD34821	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 Becovery

38.230 0.25 0.501 19.060 0.897 14.690 1.075 -6.12

MSD Status vs Numerical Indicator:	MS Status vs Recovery:	MSD Status vs Recovery:	Matrix Spike/Matrix Spike Duplicate Sample Assessment
			Matrix Spike/Matri)

Sample MS I.D. Sample MSD I.D.

Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS/ MSD Duplicate RPD: Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Duplicate Numerical Performance Indicator:

CS/LCSD in the

space below. other than

Enter Duplicate sample IDs if

30213978004

Sample I.D.:

Duplicate Sample I.D. 30213978004DUP

Sample Result (pC/IL, g, F): Sample Result Counting Uncertainty (pC/IL, g, F): Sample Duplicate Result (pC/IL, g, F):

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC? 1213978004DUF

See Below ##

0.106 0.032 0.082

7.-1.064 106.36% N/A Fail***

Duplicate Numerical Performance Indicator:

Duplicate RPD:

Duplicate Status vs Numerical Indicator;

Duplicate Status vs RPD:

MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:

* Numerical Indicator 15 ## 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.

Printed: 4/14/2017 1:49 PM TAR DW QC

Sales and the Control of the Control

Quality Control Sample Performance Assessment

Face Analytical"

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment

Ra-228 4/4/2017 Test: Analyst: Date:

34835 DW 1247572 0.039 Worklist: Matrix: MB Sample ID

Method Blank Assessment

0.312 0.719 0.25 N/A Pass M/B Counting Uncertainty: MB MDC: MB concentration: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC: Laboratory Control Sample Assessment

MS Aliquot (L, g, F):

MS Target Conc.(pCl/L, g, F):

MSD Aliquot (L, g, F):

MSD Target Conc. (pCl/L, g, F):

Sample Result

Spike uncertainty (calculated):

Sample Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Result:

Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Duplicate Result:

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:

Sample MSD I.D.

Sample Collection Date: Sample I.D. Sample MS 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):

Matrix Spike Duplicate Result Counting Uncertainty (pCi/l., g, F):

MS Numerical Performance Indicator: LCSD34835 SD (Y or N)? LCS34835 105.52% 17-005 24.852 0.20 0.800 6.211 0.447 6.553 4/6/2017 0.838 N/A Pass Result (pC/I/L, g, F): LCS/LCSD Counting Uncertainty (pC/I/L, g, F): Numerical Performance Indicator: Spike Concentration (pCi/mL): Farget Conc. (pCi/L, g, F): Uncertainty (Calculated): Count Date: Spike I.D.: Volume Used (mL): Aliquot Volume (L, g, F): Percent Recovery: Status vs Numerical Indicator:

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: Matrix Spike/Matrix Spike Duplicate Sample Assessment

> other than LCS/LCSD in the space below

0.483 0.346 0.187 0.277

Sample Result (pCl/L, g, F):
Sample Result Counting Uncertainty (pCl/L, g, F):
Sample Duplicate Result (pCl/L, g, F):
Sample Duplicate Result (pCl/L, g, F):
Are sample and/or duplicate results below MDC?

Enter Duplicate sample IDs if

Sample I.D.: 30213981001 Duplicate Sample I.D. 30213981001DUP

Status vs Recovery

Duplicate Sample Assessmen

acceptunt ₩. * November 1 Charles ## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

MS/ MSD Duplicate Status vs RPD

)213981001DUF

See Below ##

4.308

Duplicate RPD:

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD:

Duplicate Numerical Performance Indicator:

√ Ž

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

Comments:

Ra-228 NELAC DW2 Printed: 4/14/2017 1:50 PM



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: AAC0858

March 31, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, LLC.

All test results relate only to the samples analyzed.



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 31, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-9	AAC0858-01	Ground Water	03/22/17 09:28	03/23/17 14:30
HGWC-10	AAC0858-02	Ground Water	03/22/17 10:50	03/23/17 14:30
HGWC-11	AAC0858-03	Ground Water	03/22/17 12:25	03/23/17 14:30
HGWC-12	AAC0858-04	Ground Water	03/22/17 10:35	03/23/17 14:30
HGWC-13	AAC0858-05	Ground Water	03/22/17 14:30	03/23/17 14:30
HGWC-16	AAC0858-06	Ground Water	03/22/17 12:10	03/23/17 14:30
HGWC-17	AAC0858-07	Ground Water	03/22/17 14:54	03/23/17 14:30
Dup-1	AAC0858-08	Ground Water	03/22/17 00:00	03/23/17 14:30
Dup-2	AAC0858-09	Ground Water	03/22/17 00:00	03/23/17 14:30



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

Report No.: AAC0858

Client ID: HGWC-9

Date/Time Sampled: 3/22/2017 9:28:00AM

Matrix: Ground Water

March 31, 2017

Project: CCR Event

Lab Number ID: AAC0858-01

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	936	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	160	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 14:40	7030839	RLC
Fluoride	0.28	0.30	0.004	mg/L	EPA 300.0	J	1	03/28/17 09:48	03/28/17 19:53	7030839	RLC
Sulfate	240	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 14:40	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Arsenic	0.0008	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Barium	0.122	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Boron	1.99	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Cadmium	0.00007	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Calcium	183	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 19:30	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Molybdenum	0.0219	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Lithium	0.0043	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:25	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:13	7030756	MTC



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

Report No.: AAC0858

Client ID: HGWC-10

Date/Time Sampled: 3/22/2017 10:50:00AM

Matrix: Ground Water

March 31, 2017

Project: CCR Event

Lab Number ID: AAC0858-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	683	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	82	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 15:01	7030839	RLC
Fluoride	0.34	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 20:14	7030839	RLC
Sulfate	170	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 15:01	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Barium	0.0962	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Boron	0.788	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Calcium	154	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 19:53	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Molybdenum	0.0013	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:48	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:16	7030756	MTC



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

Report No.: AAC0858

Client ID: HGWC-11

Date/Time Sampled: 3/22/2017 12:25:00PM

Matrix: Ground Water

March 31, 2017

Project: CCR Event

Lab Number ID: AAC0858-03

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	597	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	37	0.25	0.01	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 21:16	7030839	RLC
Fluoride	0.66	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 21:16	7030839	RLC
Sulfate	330	20	1.8	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 15:21	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Arsenic	0.0053	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Barium	0.0346	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Beryllium	0.00009	0.0030	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Boron	0.840	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Calcium	130	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 20:05	7030796	CSW
Chromium	0.0003	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Cobalt	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Lead	0.0003	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Molybdenum	0.0110	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Selenium	0.0263	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 19:59	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:19	7030756	MTC



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 31, 2017

Report No.: AAC0858 Client ID: HGWC-12

Date/Time Sampled: 3/22/2017 10:35:00AM

Matrix: Ground Water

Project: CCR Event

Lab Number ID: AAC0858-04

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	804	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	130	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 15:42	7030839	RLC
Fluoride	0.44	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 21:36	7030839	RLC
Sulfate	220	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 15:42	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Arsenic	0.0019	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Barium	0.112	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Boron	3.04	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Cadmium	0.0003	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Calcium	162	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 20:16	7030796	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Cobalt	0.0018	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Molybdenum	0.0494	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Thallium	0.0001	0.0010	0.00005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Lithium	0.0098	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:10	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:21	7030756	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAC0858

Client ID: HGWC-13

Date/Time Sampled: 3/22/2017 2:30:00PM

Matrix: Ground Water

March 31, 2017

Project: CCR Event

Lab Number ID: AAC0858-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	427	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	59	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 16:03	7030839	RLC
Fluoride	0.76	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 21:57	7030839	RLC
Sulfate	100	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 16:03	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Arsenic	0.419	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Barium	0.0755	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Boron	1.99	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Calcium	85.1	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 20:28	7030796	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Cobalt	0.0026	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Lead	0.00007	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Molybdenum	0.0426	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Thallium	0.0004	0.0010	0.00005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Lithium	0.0353	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:22	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:23	7030756	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Lab Number ID: AAC0858-06

Date/Time Received: 3/23/2017 2:30:00PM

March 31, 2017

Report No.: AAC0858 Client ID: HGWC-16

Date/Time Sampled: 3/22/2017 12:10:00PM

Matrix: Ground Water

General Chemistry Total Dissolved Solids 5 Inorganic Anions	99 2							Date	Date	Batch	Init.
	99 2										
Inorganic Anions		25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Chloride	1 0	.25	0.01	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 22:18	7030839	RLC
Fluoride 0	30 0	.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 22:18	7030839	RLC
Sulfate 2	40	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 16:23	7030839	RLC
Metals, Total											
Antimony	D 0.0	030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Arsenic 0.0	0.0	050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Barium 0.	110 0.0	100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Beryllium	D 0.0	030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Boron 1	32 0.0	400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Cadmium	D 0.0	010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Calcium 1	50 2	5.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 20:39	7030796	CSW
Chromium 0.0	0.0	100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Cobalt	D 0.0	100	0.0005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Lead 0.0	002 0.0	050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Molybdenum	D 0.0	100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Selenium	D 0.0	100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Thallium	D 0.0	010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Lithium 0.0	025 0.0	500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:33	7030796	CSW
Mercury	D 0.0	0050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:26	7030756	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAC0858

Client ID: HGWC-17

Date/Time Sampled: 3/22/2017 2:54:00PM

Matrix: Ground Water

March 31, 2017

Project: CCR Event

Lab Number ID: AAC0858-07

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1080	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	100	5.0	0.26	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 16:44	7030839	RLC
Fluoride	0.07	0.30	0.004	mg/L	EPA 300.0	J	1	03/28/17 09:48	03/28/17 22:38	7030839	RLC
Sulfate	460	20	1.8	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 16:44	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Barium	0.0248	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Boron	5.52	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Cadmium	0.00007	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Calcium	239	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 21:02	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Cobalt	0.0169	0.0100	0.0005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Thallium	0.0001	0.0010	0.00005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 20:56	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:28	7030756	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858

Client ID: Dup-1

Date/Time Sampled: 3/22/2017 12:00:00AM

Matrix: Ground Water

Project: CCR Event

Lab Number ID: AAC0858-08

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	941	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	140	5.0	0.26	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 18:07	7030839	RLC
Fluoride	0.42	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/28/17 22:59	7030839	RLC
Sulfate	230	20	1.8	mg/L	EPA 300.0		20	03/28/17 09:48	03/29/17 18:07	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Barium	0.128	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Boron	1.97	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Calcium	188	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 21:13	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Molybdenum	0.0227	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Lithium	0.0043	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:08	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:30	7030756	MTC



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Attention: Mr. Joju Abraham

Report No.: AAC0858

Client ID: Dup-2

Date/Time Sampled: 3/22/2017 12:00:00AM

Matrix: Ground Water

March 31, 2017

Project: CCR Event

Lab Number ID: AAC0858-09

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	734	25	10	mg/L	SM 2540 C		1	03/27/17 15:10	03/27/17 15:10	7030811	JPT
Inorganic Anions											
Chloride	84	2.5	0.13	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 18:27	7030839	RLC
Fluoride	0.35	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 01:03	7030839	RLC
Sulfate	170	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 18:27	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Barium	0.0973	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Boron	0.822	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Calcium	155	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 21:25	7030796	CSW
Chromium	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Molybdenum	0.0013	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 21:19	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/24/17 09:00	03/24/17 16:33	7030756	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 31, 2017

Report No.: AAC0858

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030811 - SM 2540 C											
Blank (7030811-BLK1)						Prepar	ed & Anal	yzed: 03/2	7/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030811-BS1)						Prepar	ed & Anal	yzed: 03/2	7/17		
Total Dissolved Solids	399	25	10	mg/L	400.00		100	84-108			
Duplicate (7030811-DUP1)		Sou	ırce: AAC08	328-01		Prepar	ed & Anal	yzed: 03/2	7/17		
Total Dissolved Solids	150	25	10	mg/L		137			9	10	
Duplicate (7030811-DUP2)		Soi	ırce: AAC08	358-06		Prepar	ed & Anal	yzed: 03/2	7/17		
Total Dissolved Solids	621	25	10	mg/L		599			4	10	



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAC0858

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030839 - EPA 300.0											
Blank (7030839-BLK1)						Prepare	ed & Analy	/zed: 03/28	8/17		
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 (7030839-BS1)						Prepare	ed & Analy	/zed: 03/28	8/17		
Chloride	9.99	0.25	0.01	mg/L	10.010		100	90-110			
Fluoride	10.3	0.30	0.004	mg/L	10.020		103	90-110			
Sulfate	10.1	1.0	0.09	mg/L	10.020		101	90-110			
Matrix Spike (7030839-MS1)		Sou	urce: AAC08	358-02		Prepare	ed & Analy	/zed: 03/28	8/17		
Chloride	83.2	0.25	0.01	mg/L	10.010	81.8	14	90-110			QM-02
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.34	104	90-110			
Sulfate	145	1.0	0.09	mg/L	10.020	150	NR	90-110			QM-02
Matrix Spike (7030839-MS2)		Sou	urce: AAC08	358-08		Prepare	ed: 03/28/	17 Analyz	ed: 03/29/	′17	
Chloride	125	0.25	0.01	mg/L	10.010	128	NR	90-110			QM-02
Fluoride	10.9	0.30	0.004	mg/L	10.020	0.42	104	90-110			
Sulfate	181	1.0	0.09	mg/L	10.020	189	NR	90-110			QM-02
Matrix Spike Dup (7030839-MSD1)		Sou	urce: AAC08	358-02		Prepare	ed & Analy	/zed: 03/28	8/17		
Chloride	82.8	0.25	0.01	mg/L	10.010	81.8	10	90-110	0.5	15	QM-02
	40.0	0.30	0.004	ma/l	10.020	0.34	105	90-110	0.8	15	
Fluoride	10.8	0.30	0.004	mg/L	10.020	0.34	105	90-110	0.6	10	

March 31, 2017



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

Report No.: AAC0858

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030756 - EPA 7470A											
Blank (7030756-BLK1)						Prepare	ed & Analy	/zed: 03/24	1/17		
Mercury	ND	0.00050	0.000041	mg/L		·					
LCS (7030756-BS1)						Prepare	ed & Analv	/zed: 03/24	1/17		
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3		97	80-120			
Matrix Spike (7030756-MS1)		Soi	urce: AAC08	31-03		Prenare	len & & he	/zed: 03/24	1/17		
Mercury	0.00222	0.00050	0.000041	mg/L	2.5000E-3	ND	89	75-125	7/1/		
Matrix Snika Dun (7020756 MSD4)		So	A A C 0.01	24.02		Dronor	od Q Apol	rad: 02/2/	1/17		
Matrix Spike Dup (7030756-MSD1) Mercury	0.00233	0.00050	urce: AAC083 0.000041	mg/L	2.5000E-3	ND Prepare	ed & Analy 93	zed: 03/24/ 75-125	1 /1/ 5	20	
Weredry	0.00200	0.0000	0.000011	mg/L	2.00002 0					20	
Post Spike (7030756-PS1)		Soi	urce: AAC08					/zed: 03/24	1/17		
Mercury	1.68			ug/L	1.6667	0.0112	100	80-120			
Batch 7030796 - EPA 3005A											
Blank (7030796-BLK1)						Prenare	ed: 03/27/	17 Analyz	ed: 03/28/	17	
Antimony	ND	0.0030	0.0003	mg/L		Tropart	<u> </u>	17 Talaiy2	ca. 00/20/	.,	
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	0.0003	0.0250	0.0003	mg/L							J
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	0.0014	0.0100	0.0013	mg/L							J
Lithium	ND	0.0500	0.0011	mg/L							

March 31, 2017



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

Report No.: AAC0858

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030796 - EPA 3005A											
LCS (7030796-BS1)	Prepared: 03/27/17 Analy								ed: 03/28/	17	
Antimony	0.102	0.0030	0.0003	mg/L	0.10000		102	80-120			
Arsenic	0.0993	0.0050	0.0004	mg/L	0.10000		99	80-120			
Barium	0.0993	0.0100	0.0003	mg/L	0.10000		99	80-120			
Beryllium	0.103	0.0030	0.00007	mg/L	0.10000		103	80-120			
Boron	1.00	0.0400	0.0060	mg/L	1.0000		100	80-120			
Cadmium	0.103	0.0010	0.00006	mg/L	0.10000		103	80-120			
Calcium	1.00	0.500	0.0104	mg/L	1.0000		100	80-120			
Chromium	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Copper	0.104	0.0250	0.0003	mg/L	0.10000		104	80-120			
Lead	0.0994	0.0050	0.00007	mg/L	0.10000		99	80-120			
Molybdenum	0.102	0.0100	0.0006	mg/L	0.10000		102	80-120			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Selenium	0.101	0.0100	0.0014	mg/L	0.10000		101	80-120			
Silver	0.0993	0.0100	0.0003	mg/L	0.10000		99	80-120			
Thallium	0.102	0.0010	0.00005	mg/L	0.10000		102	80-120			
Vanadium	0.0967	0.0100	0.0014	mg/L	0.10000		97	80-120			
Zinc	0.101	0.0100	0.0013	mg/L	0.10000		101	80-120			
Lithium	0.102	0.0500	0.0011	mg/L	0.10000		102	80-120			
Matrix Spike (7030796-MS1)		So	urce: AAC08	58-01		Prepare	ed: 03/27/	17 Analyz	ed: 03/28/	17	
Antimony	0.106	0.0030	0.0003	mg/L	0.10000	ND	106	75-125			
Arsenic	0.106	0.0050	0.0004	mg/L	0.10000	0.0008	106	75-125			
Barium	0.290	0.0100	0.0003	mg/L	0.10000	0.122	168	75-125			QM-02
Beryllium	0.0915	0.0030	0.00007	mg/L	0.10000	ND	91	75-125			
Boron	2.79	0.0400	0.0060	mg/L	1.0000	1.99	80	75-125			
Cadmium	0.0987	0.0010	0.00006	mg/L	0.10000	0.00007	99	75-125			
Calcium	185	25.0	0.522	mg/L	1.0000	183	185	75-125			QM-02
Chromium	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	0.0005	101	75-125			
Copper	0.0976	0.0250	0.0003	mg/L	0.10000	ND	98	75-125			
Lead	0.0960	0.0050	0.00007	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.129	0.0100	0.0006	mg/L	0.10000	0.0219	107	75-125			
Nickel	0.101	0.0100	0.0003	mg/L	0.10000	0.0008	100	75-125			
Selenium	0.107	0.0100	0.0014	mg/L	0.10000	ND	107	75-125			
Silver	0.0958	0.0100	0.0003	mg/L	0.10000	ND	96	75-125			
Thallium	0.0999	0.0010	0.00005	mg/L	0.10000	ND	100	75-125			
Vanadium	0.103	0.0100	0.0014	mg/L	0.10000	ND	103	75-125			
Zinc	0.0979	0.0100	0.0014	mg/L	0.10000	ND	98	75-125 75-125			
Lithium	0.0973	0.0500	0.0013	mg/L	0.10000	0.0043	94	75-125 75-125			
Liundin	0.0001	0.0000	0.0011	mg/L	0.10000	3.00-0	5 4	70 120			

March 31, 2017



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

Report No.: AAC0858

March 31, 2017

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch 7030796 - EPA 3005A												
Matrix Spike Dup (7030796-MSD1)	Matrix Spike Dup (7030796-MSD1)			Source: AAC0858-01			Prepared: 03/27/17 Analyzed: 03/28/17					
Antimony	0.103	0.0030	0.0003	mg/L	0.10000	ND	103	75-125	4	20		
Arsenic	0.104	0.0050	0.0004	mg/L	0.10000	0.0008	103	75-125	2	20		
Barium	0.290	0.0100	0.0003	mg/L	0.10000	0.122	168	75-125	0.002	20	QM-02	
Beryllium	0.0968	0.0030	0.00007	mg/L	0.10000	ND	97	75-125	6	20		
Boron	2.89	0.0400	0.0060	mg/L	1.0000	1.99	90	75-125	3	20		
Cadmium	0.102	0.0010	0.00006	mg/L	0.10000	0.00007	102	75-125	3	20		
Calcium	185	25.0	0.522	mg/L	1.0000	183	164	75-125	0.1	20	QM-02	
Chromium	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	2	20		
Cobalt	0.107	0.0100	0.0005	mg/L	0.10000	0.0005	106	75-125	5	20		
Copper	0.101	0.0250	0.0003	mg/L	0.10000	ND	101	75-125	3	20		
Lead	0.0950	0.0050	0.00007	mg/L	0.10000	ND	95	75-125	1	20		
Molybdenum	0.131	0.0100	0.0006	mg/L	0.10000	0.0219	109	75-125	1	20		
Nickel	0.104	0.0100	0.0003	mg/L	0.10000	0.0008	103	75-125	3	20		
Selenium	0.106	0.0100	0.0014	mg/L	0.10000	ND	106	75-125	1	20		
Silver	0.0939	0.0100	0.0003	mg/L	0.10000	ND	94	75-125	2	20		
Thallium	0.0987	0.0010	0.00005	mg/L	0.10000	ND	99	75-125	1	20		
Vanadium	0.107	0.0100	0.0014	mg/L	0.10000	ND	107	75-125	3	20		
Zinc	0.105	0.0100	0.0013	mg/L	0.10000	ND	105	75-125	7	20		
Lithium	0.0993	0.0500	0.0011	mg/L	0.10000	0.0043	95	75-125	0.9	20		
Post Spike (7030796-PS1)		Sou	ırce: AAC08	58-01		Prepar	ed: 03/27/	17 Analyz	ed: 03/28/	17		
Antimony	101			ug/L	100.00	0.118	101	80-120				
Arsenic	106			ug/L	100.00	0.759	105	80-120				
Barium	288			ug/L	100.00	122	167	80-120			QM-02	
Beryllium	90.9			ug/L	100.00	0.0019	91	80-120				
Boron	2820			ug/L	1000.0	1990	82	80-120				
Cadmium	102			ug/L	100.00	0.0663	102	80-120				
Calcium	180000			ug/L	1000.0	183000	NR	80-120			QM-02	
Chromium	109			ug/L	100.00	0.212	109	80-120				
Cobalt	104			ug/L	100.00	0.542	103	80-120				
Copper	98.6			ug/L	100.00	0.225	98	80-120				
Lead	95.8			ug/L	100.00	0.0463	96	80-120				
Molybdenum	128			ug/L	100.00	21.9	106	80-120				
Nickel	102			ug/L	100.00	0.829	101	80-120				
Selenium	108			ug/L	100.00	0.530	107	80-120				
Silver	94.0			ug/L	100.00	0.0035	94	80-120				
Thallium	99.4			ug/L	100.00	0.0423	99	80-120				
Vanadium	106			ug/L	100.00	0.223	105	80-120				
Zinc	98.9			ug/L	100.00	1.11	98	80-120				
Lithium	97.5			ug/L	100.00	4.32	93	80-120				
				~y, _	. 55.55			30 I <u>L</u> 0				



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 31, 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.



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 31, 2017

Report Notes

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR

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

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PAGE:

- 4 5 - NaOWZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - ≤6°C not frozen Extra radium volume collected for Lab QA/QC Extra radium volume collected for Lab QA/QC -0858 REMARKS/ADDITIONAL INFORMATION 2 - H₂SO4, ≤6°C 4 - NaOH, ≤6°C P - PRODUCT **PRESERVATION** 1- HCl.≤6°C SL - SLUDGE L- LIQUID anos -as 3- HNO3 A - AIR FOR LAB USE ONL *MATRIX CODES: SW - SURFACE WATER DRINKING WATER GW - GROUNDWATER ST - STORM WATER WW - WASTEWATER A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE S - STERILE O - OTHER V - VOA VIAL P - PLASTIC WATER *95 ≱ 平数 0 88 9 0 **-** 0 ZJEmmr **4**0 OTHER FS DATE/TIME: 3/22/17 S/22/17 DATE/TIME: <u>ANALYSIS REQUESTED</u> (0ZE6/91E6 978-MS N U.A. USPS മത Radium 226 & 228 ٦/ (EPA 300.0 & SM 2540C) CI, F, 50, & TDS SAMPLE SHIPPED VIA. UPS: PEDLEX RELINQUISHED BY: (0747\0203 A93) പ പ VI & III .qqA T2S haq stateM CONTAINER TYPE: PRESERVATION: **50**# 3 m ო e ပဝ ო laburch@southemco.com SAMPLE IDENTIFICATION 200 Heath McCorkle HGWC-12 HGWC-13 HGWC-16 HGWC-10 HGWC-9 HGWC-11 HGWC-17 DUP-1 DUP-2 Maria Padilla DATE/TIME: 7 3/22/17 DATE/TIME: Plant Hammond - AP 1&2 **2.1ENT ADDRESS/PHONE NUMBER/FAX NUMBER** 90 80 ÿ 0 K 4 B × × × × 0024 SAMPLED BY AND TITLE ME M.Burch T.Thomas MATRIX CODE* REQUESTED COMPLETION DATE: ₹ ₹ ₹ 3 ₹ ₹ ₹ ₹ 3 241 Ralph McGill Blvd SE B10185 auren Petty PROJECT NAME/STATE: Collection 12:10 10:50 12:25 10.35 4:30 14:54 9:28 Manta, GA 30308 W.Virgo WAY RECEIVED BY: CLIENT NAME Seorgia Power 404-508-7239 REPORT TO PROJECT #: Collection DATE 03/22/17 03/22/17 03/22/17 03/22/17 03/22/17 03/22/17 03/22/17 03/22/17 03/22/17 Page 19 of 20

2017 03 22 Hammond COCs.xlsx

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

LOG-IN CHECKLIST

Printed: 3/27/2017 11:04:42AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AAC0858

Date Received: 03/23/17 14:30 **Logged In By:** Mohammad M. Rahman

OBSERVATIONS

#Samples: 9 **#Containers:** 40

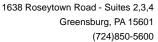
Minimum Temp(C): 1.0 Maximum Temp(C): 1.0 Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	NO
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR





April 17, 2017

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: AAC0858 Plant Hammond

Pace Project No.: 30214099

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on March 24, 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

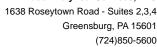
Sugnely Sellins

jacquelyn.collins@pacelabs.com

(724)850-5612 Project Manager

Enclosures







CERTIFICATIONS

Project: AAC0858 Plant Hammond

Pace Project No.: 30214099

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 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

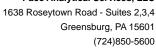
Tennessee Certification #: TN2867

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



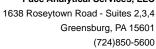


SAMPLE SUMMARY

Project: AAC0858 Plant Hammond

Pace Project No.: 30214099

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30214099001	HGWC-9	Water	03/22/17 09:28	03/24/17 09:50
30214099002	HGWC-10	Water	03/22/17 10:50	03/24/17 09:50
30214099003	HGWC-11	Water	03/22/17 12:25	03/24/17 09:50
30214099004	HGWC-12	Water	03/22/17 10:35	03/24/17 09:50
30214099005	HGWC-13	Water	03/22/17 14:30	03/24/17 09:50
30214099006	HGWC-16	Water	03/22/17 12:10	03/24/17 09:50
30214099007	HGWC-17	Water	03/22/17 14:54	03/24/17 09:50
30214099008	DUP-1	Water	03/22/17 00:01	03/24/17 09:50
30214099009	DUP-2	Water	03/22/17 00:01	03/24/17 09:50



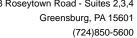


SAMPLE ANALYTE COUNT

Project: AAC0858 Plant Hammond

Pace Project No.: 30214099

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30214099001	HGWC-9	EPA 9315		1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214099002	HGWC-10	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214099003	HGWC-11	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214099004	HGWC-12	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214099005	HGWC-13	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214099006	HGWC-16	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214099007	HGWC-17	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214099008	DUP-1	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214099009	DUP-2	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0858 Plant Hammond

Pace Project No.: 30214099

Pace Project No.: 30214099	9					
Sample: HGWC-9	Lab ID: 30214099		Received:	03/24/17 09:50 N	latrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.0874 ± 0.0976 (0.187)	pCi/L	04/03/17 14:41	13982-63-3	
Radium-228	EPA 9320	C:92% T:NA 0.364 ± 0.325 (0.657) C:82% T:91%	pCi/L	04/11/17 17:17	15262-20-1	
Total Radium		0.451 ± 0.423 (0.844)	pCi/L	04/17/17 10:51	7440-14-4	
Sample: HGWC-10	Lab ID: 30214099	002 Collected: 03/22/17 10:50	Received:	03/24/17 09:50 N	latrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.0470 ± 0.0907 (0.209)	pCi/L	04/03/17 14:41	13982-63-3	
Radium-228	EPA 9320	C:93% T:NA 0.704 ± 0.380 (0.673) C:81% T:86%	pCi/L	04/11/17 17:18	15262-20-1	
Total Radium		0.751 ± 0.471 (0.882)	pCi/L	04/17/17 10:51	7440-14-4	
Sample: HGWC-11 PWS:	Lab ID: 30214099 Site ID:	003 Collected: 03/22/17 12:25 Sample Type:	Received:	03/24/17 09:50 N	latrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.202 ± 0.148 (0.259)	pCi/L	04/03/17 14:41		
Radium-228	EPA 9320	C:96% T:NA 0.116 ± 0.304 (0.680)	pCi/L	04/11/17 17:18	15262-20-1	
Total Radium		C:76% T:88% 0.318 ± 0.452 (0.939)	pCi/L	04/17/17 10:51	7440-14-4	
Sample: HGWC-12 PWS:	Lab ID: 30214099 Site ID:	004 Collected: 03/22/17 10:35 Sample Type:	Received:	03/24/17 09:50 N	latrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.399 ± 0.178 (0.195) C:97% T:NA	pCi/L	04/03/17 14:41	13982-63-3	
Radium-228	EPA 9320	0.236 ± 0.310 (0.659) C:78% T:82%	pCi/L	04/11/17 17:18	15262-20-1	
Total Radium		0.635 ± 0.488 (0.854)	pCi/L	04/17/17 10:51	7440-14-4	
Sample: HGWC-13 PWS:	Lab ID: 30214099 Site ID:	005 Collected: 03/22/17 14:30 Sample Type:	Received:	03/24/17 09:50 M	latrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.166 ± 0.134 (0.220) C:81% T:NA	pCi/L	04/03/17 14:41		
Radium-228	EPA 9320	0.119 ± 0.313 (0.702) C:81% T:83%	pCi/L	04/11/17 17:18	15262-20-1	



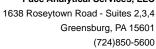
ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0858 Plant Hammond

Pace Project No.: 30214099 Sample: HGWC-13 Lab ID: 30214099005 Collected: 03/22/17 14:30 Received: 03/24/17 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 $0.285 \pm 0.447 \quad (0.922)$ pCi/L 04/17/17 10:51 7440-14-4 Calculation Sample: HGWC-16 Lab ID: 30214099006 Collected: 03/22/17 12:10 Received: 03/24/17 09:50 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.0594 \pm 0.102 \quad (0.229)$ Radium-226 pCi/L 04/03/17 14:38 13982-63-3 C:80% T:NA Radium-228 EPA 9320 0.394 ± 0.294 pCi/L 04/11/17 17:18 15262-20-1 C:79% T:94% Total Radium Total Radium 0.453 ± 0.396 (0.794) pCi/L 04/17/17 10:51 7440-14-4 Calculation Sample: HGWC-17 Lab ID: 30214099007 Collected: 03/22/17 14:54 Received: 03/24/17 09:50 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 $0.0766 \pm 0.0946 \quad (0.193)$ Radium-226 04/04/17 08:21 13982-63-3 pCi/L C:93% T:NA Radium-228 EPA 9320 0.360 ± 0.354 pCi/L 04/11/17 17:19 15262-20-1 C:71% T:92% Total Radium Total Radium $0.437 \pm 0.449 \quad (0.917)$ pCi/L 04/17/17 10:51 7440-14-4 Calculation Lab ID: 30214099008 Sample: DUP-1 Collected: 03/22/17 00:01 Received: 03/24/17 09:50 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 $0.0908 \pm 0.0960 \quad (0.183)$ Radium-226 pCi/L 04/04/17 08:21 13982-63-3 C:95% T:NA EPA 9320 $0.159 \pm 0.326 \quad (0.719)$ Radium-228 pCi/L 04/11/17 17:19 15262-20-1 C:80% T:88% Total Radium Total Radium $0.250 \pm 0.422 \quad (0.902)$ pCi/L 04/17/17 10:51 7440-14-4 Calculation Sample: DUP-2 Lab ID: 30214099009 Collected: 03/22/17 00:01 Received: 03/24/17 09:50 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed Radium-226 EPA 9315 $0.0467 \pm 0.0819 \quad (0.184)$ pCi/L 04/04/17 08:55 13982-63-3 C:89% T:NA EPA 9320 0.502 ± 0.339 Radium-228 (0.638)pCi/L 04/11/17 17:19 15262-20-1 C:79% T:87% Total Radium Total Radium 0.549 ± 0.421 (0.822) pCi/L 04/17/17 10:51 7440-14-4

REPORT OF LABORATORY ANALYSIS

Calculation





QUALITY CONTROL - RADIOCHEMISTRY

pCi/L

04/11/17 17:17

Project: AAC0858 Plant Hammond

Pace Project No.: 30214099

Radium-228

QC Batch: 254541 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30214099001, 30214099002, 30214099003, 30214099004, 30214099005, 30214099006, 30214099007,

30214099008, 30214099009

METHOD BLANK: 1253314 Matrix: Water

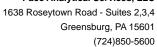
Associated Lab Samples: 30214099001, 30214099002, 30214099003, 30214099004, 30214099005, 30214099006, 30214099007,

30214099008, 30214099009

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

0.455 ± 0.376 (0.747) C:80% T:76%

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0858 Plant Hammond

Pace Project No.: 30214099

QC Batch: 253625 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30214099001, 30214099002, 30214099003, 30214099004, 30214099005, 30214099006, 30214099007,

30214099008, 30214099009

METHOD BLANK: 1248390 Matrix: Water

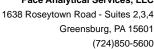
Associated Lab Samples: 30214099001, 30214099002, 30214099003, 30214099004, 30214099005, 30214099006, 30214099007,

30214099008, 30214099009

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.0020± 0.0654 (0.190) C:94% T:NA pCi/L 04/03/17 14:41

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.





QUALIFIERS

Project: AAC0858 Plant Hammond

Pace Project No.: 30214099

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.

Date: 04/17/2017 01:17 PM

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.

30214099

Chain of Custody

Results Requested By: 4/17/2017 Owner Received Date: Plant Hammond Workorder Name: Workorder: AAC0858

Rep	Report To:		Subcontract To:	To:					Req	Requested Analysis	d Anal	ysis			
Bets	Betsy McDaniel		Pace - Pittsburgh	ngh			l _s	αl							
Расе	Pace Analytical Atlanta		1638 Roseytown Road	own Road			†o]	ימו							
110	110 Technology Parkway		Stes. 2,3,4				. ४	' O'							
Реас	Peachtree Corners, GA 30092		Greensburg, PA 15601	PA 15601				77 (
Phoi	Phone (770)-734-4200		Phone (724) 850-5600	850-5600			960	077							
						Preserved Containers	Special Control	7 111							
Item	tem Sample ID	Sample Type	ample Type Collect Date/Time Lab ID	Lab ID	Matrix	EONH	uibsЯ	กเกยง					<u> </u>	LAB USE ONLY	
1	HGWC-9	ß	3/22/2017 9:28	AAC0858-01	ВW	2	×								
2	HGWC-10	g	3/22/2017 10:50	AAC0858-02	GW	2	×	_							
3	HGWC-11	g	3/22/2017 12:25	AAC0858-03	GW	2	×								
4	HGWC-12	ŋ	3/22/2017 10:35	AAC0858-04	GW	4	×	~							
5	HGWC-13	G	3/22/2017 14:30	AAC0858-05	GW	4	×	J							
9	HGWC-16	Ð	3/22/2017 12:10	AAC0858-06	GW	2	X	_							

Cooler Temperature on Receipt "C	Custody Seal Y or N Received on Ice Y or N	e Y or N Sample Intact Y or N
***In order to maintain client confidentiality, lo	ocation/name of the sampling site, sampler's name and signature may not be provided on this COC	e 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.

3-74/17 (子のEQuIS deliverable required (EDD 7564).

Comments

Date/Time

Received By

Date/Time

Transfers | Released By

10

×

ØW GW

3/22/2017 14:54 3/22/2017 0:00 3/22/2017 0:00

G 9 Ð

HGWC-17 Dup-1 Dup-2

<u>@</u>

AAC0858-09 AAC0858-08 AAC0858-07

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

WO#:30214099

Pace Analytical "

CHAIN OF CUSTODY RECORD

Pace Analytical Services, In 110 TECHNOLOGY PARKI (770) 734-4200 : FAX (770)

ö

AGE:

8 8 8888 8 5 - NaOHIZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - seft not frozen Extra radium votume collected for Lab QA/QC Extra radium voluma collected for Lab QA/QC 0858 REMARKS/ADDITIONAL INFORMATION 2 - H₂SO4, ≤6°C 4 - NaOH, 56°C P. PRODUCI PRESERVATION 1 - HCl, ≤6°C SL SLUDGE A - AIR L - LIQUID sp. soup 3- HNO FOR LAB USE ONE MATRIX CODES: GW - GROUNDWATER SW - SURFACE WATER ST - STORM WATER DRINKING WATER P - PLASTIC A - AMBER GLASS G - CLEAR GLASS DW - DRINKING WATE MW - WASTEWATER **SONTAINER TYPE** V - VOA VIAL S-STERULE O-OTHER W- WATER *8 @ Q 12 (Q 88 DATE/TIME: ANALYSIS REQUESTED 2017 03 22 Hammond COCs.xlsx 2M-949 8312/8350) ۵. 855 & 855 mulbes9 (EPA 300.0 & SM 2540C) SCI, F, SO, & TDS RELINGUISHED BY: ((EPA 6020/7470) VI & III .qqA 725 haq elateM CONTANGER TYPE: PRESERVATION: # Of 60 n n m n laburch@southernco.com SAMPLE IDENTIFICATION 98 1200 1200 Heath McCorkle HGWC-10 HGWC-13 HGWC16 HGWC-9 HGWC-12 FOWC1 HSWC: **DUP-2** Maria Padille 1.71-17.17.10 Plant Hammond - AP 1&2 *YLENT ADDRESS/PHONE NUMBER/FAX NUMBER:* 8. ğ ខ × × × × × × 0 K < 0 Accepted to the O O ≥ 0. AMPLED BY AND TITLE MED M. Burch アルアス MATRIX CODE* REQUESTED COMPLETION DATE: ₹ ₹ ₹ 3 ₹ 3 ₹ 3 ₹ 241 Ratph McGIII Blvd SE B10185 auren Petty Collection TIME PROJECT NAME/STATE 1225 <u>4.</u> 12:10 1,54 10.68 10:35 8 Manta, GA 30308 CLIENT NAME: Georgia Power 104-506-7239 RPORT TO PROJECT #: Collection DATE 03/22/17 03/22/17 03/22/17 03/22/17 03/22/17 **CS/22/17** 03/22/17 03/22/17 03/22/17

Page 11 of 14

Sample Condition Upon Receipt Pittsburgh

AUL

Client Name:	·	Pa	Cl	GA	Project # 30 2 1 4 0 9
Courier:	nt 🗆	Comm	nercial	<u> </u>	
Custody Seal on Cooler/Box Present:	Þ	no	Seals	intact: yes	∐ no
Thermometer Used VIA	Туре	of Ice:	Wet	Blue (None)	°C
Cooler Temperature Observed Temp		C	Corre	ection Factor <u>:</u>	°C Final Temp:
Temp should be above freezing to 6°C					Date and Initials of person examining
		No.	1 N/A	,	contents: (19 // 3-24-1/
Comments:	Yes	No	N/A	1.	
Chain of Custody Present:	$+ \Diamond$		-	1.	
Chain of Custody Filled Out:	$\downarrow \Diamond$		-	2	
Chain of Custody Relinquished:	$\downarrow \Diamond$	-		3.	
Sampler Name & Signature on COC:	$\downarrow \Diamond$			4.	
Sample Labels match COC:	K	- '- '		5.	
-Includes date/time/ID Matrix:	N.	i	- :		
Samples Arrived within Hold Time:	X	V		6.	
Short Hold Time Analysis (<72hr remaining):	<u> </u>	X	<u> </u>	7	
Rush Turn Around Time Requested:	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	X		8.	
Sufficient Volume:	X	<u>. </u>		9	
Correct Containers Used:	X		<u> </u>	10.	
-Pace Containers Used:		X_{-}			
Containers Intact:	X		11 may 12 may 1	11.	
Orthophosphate field filtered			7.	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			PHLZ	
				initial when and	Date/time of preservation
exceptions: VOA, coliform, TOC, O&G, Phenolics				Lot # of added	
			T. 7	preservative	
Headspace in VOA Vials (>6mm):			X	16.	
Trip Blank Present:		上		17.	
Trip Blank Custody Seals Present	ļ		X	Initial whom A	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when ACT A	Date: 3-24-17
Client Notification/ Resolution:					
Person Contacted:			Date/	Time:	Contacted By:
Comments/ Resolution:					
					dia annuaria

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.

Face Analytical

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

4/8/2017 34997 DW ALW Worklist: Matrix: Test: Date: Analyst:

Sample Matrix Spike Control Assessment

0.455 0.368 0.747 2.42 N/A Pass MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC: Method Blank Assessment

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

N o ≻

Laboratory Control Sample Assessment

LCSD34997 0.812 0.99 107.55% LCS34997 4/11/2017 17-005 24.810 0.20 0.802 6.188 0.446 6.656 Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated): Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Count Date: Spike Concentration (pCi/mL): Volume Used (mL): Numerical Performance Indicator: Percent Recovery: Status vs Numerical Indicator: Spike I.D.

Sample MS I.D. Sample MSD I.D. Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample I.D. Sample Matrix Spike Result: 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:

30214099004 3214099004DUP

See Below ##

Are sample and/or duplicate results below MDC?

Duplicate Numerical Performance Indicator:

-0.912 59.04%

N/A

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD;

Duplicate RPD:

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

30214099004DUP 0.236 0.307 0.434 th

Sample I.D.

Duplicate Sample I.D.

Sample Result (pci/l., g, F):
Sample Result Counting Uncertainty (pci/l., g, F):
Sample Duplicate Result (pci/l., g, F):
Sample Duplicate Result (pci/l., g, F):

30214099004

N/A

Status vs Recovery

Duplicate Sample Assessment

MSD Status vs Recovery

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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.

AMPL be.

1 of 1

Face Analytical"

Method Blank Assessment

Quality Control Sample Performance Assessment

Ra-226

Test:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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:	retection leaders in the Charles
													z	LCSD34857										
JC2 3/31/2017	34857	ΔM			1248390	0.002	0.065	0.190	90.0	A/N	Pass		LCSD (Y or N)?	LCS34857	4/4/2017	17-003	38.230	0.25	0.504	18.949	0.891	15.378	0.910	2
Analyst: Date:	Worklist:	Matrix:		ssment	MB Sample ID	MB concentration:	M/B Counting Uncertainty:	MB MDC:	MB Numerical Performance Indicator:	MB Status vs Numerical Indicator:	MB Status vs. MDC:		Sample Assessment		Count Date:	Spike I.D.:	Spike Concentration (pCi/mL):	Volume Used (mL):	Aliquot Volume (L, g, F):	Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCi/L, g, F):	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	The state of the s

Laboratory Control Sample A

	Matrix Spike/Matrix Spike Duplicate Sample Assessment	
nter Duplicate	Sample I.D.	
sample IDs if	Sample MS I.D.	
other than	Sample MSD I.D.	
S/LCSD in the	Sample Matrix Spike Result:	
space below.	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
	Sample Matrix Spike Duplicate Result:	
	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
30214099001	Duplicate Numerical Performance Indicator:	
214099001DUP	MS/ MSD Duplicate RPD:	
	MS/ MSD Duplicate Status vs Numerical Indicator:	
	MS/MSD Displaced Control DDD.	

30214099001 30214099001DUP

Sample I.D.: Duplicate Sample I.D.

Duplicate Sample Assessment

0.087 0.097 0.074 0.086 See Below ##

Sample Result Counting Uncertainty (pC/IL, g, F):
Sample Duplicate Result (pC/IL, g, F):
Sample Duplicate Result (pC/IL, g, F):
Are sample and/or duplicate results below MDC?

0.207

Duplicate RPD:

Duplicate Numerical Performance Indicator:

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD

N/A Pass

MSD Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

0.910 -5.49 81.16%

Numerical Performance Indicator:

Percent Recovery:

Status vs Numerical Indicator Status vs Recovery

N/A Pass

Comments:

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



1 of 1



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: AAC0910
April 03, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, LLC.

All test results relate only to the samples analyzed.



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

April 03, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-14	AAC0910-01	Water	03/23/17 09:35	03/24/17 14:20
HGWC-15	AAC0910-02	Water	03/23/17 11:25	03/24/17 14:20
HGWC-18	AAC0910-03	Water	03/23/17 10:25	03/24/17 14:20
FB-1	AAC0910-04	Water	03/23/17 09:25	03/24/17 14:20
FERB-1	AAC0910-05	Water	03/23/17 09:30	03/24/17 14:20
FB-2	AAC0910-06	Water	03/23/17 09:55	03/24/17 14:20
FERB-2	AAC0910-07	Water	03/23/17 10:00	03/24/17 14:20



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

Report No.: AAC0910 Client ID: HGWC-14

Date/Time Sampled: 3/23/2017 9:35:00AM

Matrix: Water

Project: CCR Event

Lab Number ID: AAC0910-01

Date/Time Received: 3/24/2017 2:20:00PM

April 03, 2017

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3060	25	10	mg/L	SM 2540 C		1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	600	25	1.3	mg/L	EPA 300.0		100	03/29/17 10:17	03/31/17 00:17	7030885	RLC
Fluoride	0.28	0.30	0.004	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/30/17 01:20	7030885	RLC
Sulfate	1500	100	9.2	mg/L	EPA 300.0		100	03/29/17 10:17	03/31/17 00:17	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Arsenic	0.0069	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Barium	0.0244	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Beryllium	0.0006	0.0030	0.00007	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Boron	23.1	4.00	0.604	mg/L	EPA 6020B		100	03/29/17 06:30	03/31/17 16:20	7030831	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Calcium	652	50.0	1.04	mg/L	EPA 6020B	B-01	100	03/29/17 06:30	03/31/17 16:20	7030831	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Cobalt	0.0311	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Lead	0.0019	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Selenium	0.0167	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Thallium	0.0003	0.0010	0.00005	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:49	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:02	7030865	MTC



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Attention: Mr. Joju Abraham

Report No.: AAC0910 Client ID: HGWC-15

Date/Time Sampled: 3/23/2017 11:25:00AM

Matrix: Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0910-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1360	25	10	mg/L	SM 2540 C		1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	280	5.0	0.26	mg/L	EPA 300.0		20	03/29/17 10:17	03/30/17 11:30	7030885	RLC
Fluoride	0.12	0.30	0.004	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/30/17 01:41	7030885	RLC
Sulfate	530	20	1.8	mg/L	EPA 300.0		20	03/29/17 10:17	03/30/17 11:30	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Arsenic	0.0008	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Barium	0.0329	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Boron	2.72	2.00	0.302	mg/L	EPA 6020B		50	03/29/17 06:30	03/31/17 16:26	7030831	CSW
Cadmium	0.0020	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Calcium	229	25.0	0.522	mg/L	EPA 6020B	B-01	50	03/29/17 06:30	03/31/17 16:26	7030831	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Cobalt	0.0715	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Lead	0.0010	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Selenium	0.0016	0.0100	0.0014	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Lithium	0.0016	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:11	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:04	7030865	MTC



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Attention: Mr. Joju Abraham

Report No.: AAC0910

Client ID: HGWC-18

Date/Time Sampled: 3/23/2017 10:25:00AM

Matrix: Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0910-03

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	2080	25	10	mg/L	SM 2540 C		1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	350	5.0	0.26	mg/L	EPA 300.0		20	03/29/17 10:17	03/30/17 11:52	7030885	RLC
Fluoride	0.57	0.30	0.004	mg/L	EPA 300.0		1	03/29/17 10:17	03/30/17 02:02	7030885	RLC
Sulfate	980	20	1.8	mg/L	EPA 300.0		20	03/29/17 10:17	03/30/17 11:52	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Arsenic	0.0082	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Barium	0.0313	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Beryllium	0.0036	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Boron	10.6	2.00	0.302	mg/L	EPA 6020B		50	03/29/17 06:30	03/31/17 16:32	7030831	CSW
Cadmium	0.0025	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Calcium	440	25.0	0.522	mg/L	EPA 6020B	B-01	50	03/29/17 06:30	03/31/17 16:32	7030831	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Cobalt	0.223	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Lead	0.0010	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Selenium	0.0414	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Thallium	0.0002	0.0010	0.00005	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Lithium	0.0151	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:23	7030831	CSW
Mercury	0.00009	0.00050	0.000041	mg/L	EPA 7470A	J	1	03/29/17 13:10	03/30/17 15:06	7030865	MTC



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Attention: Mr. Joju Abraham

Project: CCR Event

Report No.: AAC0910

Lab Number ID: AAC0910-04

Client ID: FB-1

Date/Time Received: 3/24/2017 2:20:00PM

April 03, 2017

Date/Time Sampled: 3/23/2017 9:25:00AM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	0.08	0.25	0.01	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/30/17 03:45	7030885	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/29/17 10:17	03/30/17 03:45	7030885	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/29/17 10:17	03/30/17 03:45	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Boron	0.0135	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Calcium	0.0580	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:34	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:13	7030865	MTC



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Attention: Mr. Joju Abraham

Client ID: FERB-1

Report No.: AAC0910

Date/Time Sampled: 3/23/2017 9:30:00AM

Matrix: Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0910-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	lnit.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/30/17 04:26	7030885	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/29/17 10:17	03/30/17 04:26	7030885	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/29/17 10:17	03/30/17 04:26	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Barium	0.0003	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Boron	0.0087	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Calcium	0.0730	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:40	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:16	7030865	MTC



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Attention: Mr. Joju Abraham

Report No.: AAC0910

Client ID: FB-2

Date/Time Sampled: 3/23/2017 9:55:00AM

Matrix: Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0910-06

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	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/30/17 04:47	7030885	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/29/17 10:17	03/30/17 04:47	7030885	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/29/17 10:17	03/30/17 04:47	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Calcium	0.0486	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:46	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:18	7030865	MTC



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Attention: Mr. Joju Abraham

Report No.: AAC0910
Client ID: FERB-2

Date/Time Sampled: 3/23/2017 10:00:00AM

Matrix: Water

April 03, 2017

Project: CCR Event

Lab Number ID: AAC0910-07

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	10	25	10	mg/L	SM 2540 C	J	1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	0.09	0.25	0.01	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/30/17 05:09	7030885	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/29/17 10:17	03/30/17 05:09	7030885	RLC
Sulfate	0.11	1.0	0.09	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/30/17 05:09	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Barium	0.0008	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Calcium	0.159	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Lead	0.0004	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 04:52	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:21	7030865	MTC



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

Report No.: AAC0910

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030887 - SM 2540 C											
Blank (7030887-BLK1)						Prepar	ed & Anal	yzed: 03/2	9/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030887-BS1)						Prepar	ed & Anal	yzed: 03/2	9/17		
Total Dissolved Solids	411	25	10	mg/L	400.00		103	84-108			
Duplicate (7030887-DUP1)		So	ırce: AAC0	909-05		Prepar	ed & Anal	yzed: 03/2	9/17		
Total Dissolved Solids	302	25	10	mg/L		302			0	10	
Duplicate (7030887-DUP2)		So	ırce: AAC0	910-07		Prepar	ed & Anal	yzed: 03/2	9/17		
Total Dissolved Solids	ND	25	10	mg/L		10				10	

April 03, 2017



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

Report No.: AAC0910

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030885 - EPA 300.0											
Blank (7030885-BLK1)						Prepare	ed & Analy	/zed: 03/2	9/17		
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 (7030885-BS1)						Prepare	ed & Analy	zed: 03/2	9/17		
Chloride	10.1	0.25	0.01	mg/L	10.010		101	90-110			
Fluoride	10.4	0.30	0.004	mg/L	10.020		104	90-110			
Sulfate	10.2	1.0	0.09	mg/L	10.020		102	90-110			
Matrix Spike (7030885-MS1)		Sou	urce: AAC09	905-01		Prepare	ed & Analy	zed: 03/2	9/17		
Chloride	17.1	0.25	0.01	mg/L	10.010	7.05	100	90-110			
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.12	105	90-110			
Sulfate	168	1.0	0.09	mg/L	10.020	175	NR	90-110			QM-02
Matrix Spike (7030885-MS2)		Sou	urce: AAC09	910-04		Prepare	ed: 03/29/	17 Analyz	ed: 03/30/	17	
Chloride	10.2	0.25	0.01	mg/L	10.010	0.08	101	90-110			
Fluoride	10.6	0.30	0.004	mg/L	10.020	ND	106	90-110			
Sulfate	10.3	1.0	0.09	mg/L	10.020	ND	103	90-110			
Matrix Spike Dup (7030885-MSD1)		Sou	ırce: AAC09	905-01		Prepare	ed & Analy	/zed: 03/2	9/17		
Chloride	17.0	0.25	0.01	mg/L	10.010	7.05	99	90-110	0.7	15	
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.12	106	90-110	0.4	15	
		1.0									QM-02

April 03, 2017



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 April 03, 2017

Report No.: AAC0910

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030831 - EPA 3005A											
Blank (7030831-BLK1)						Prepare	ed: 03/29/	17 Analyz	ed: 03/30/	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	0.0136	0.500	0.0104	mg/L							J
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 (7030831-BS1)						Prenar	ed: 03/29/	17 Analyz	ed: 03/30/	17	
Antimony	0.109	0.0030	0.0003	mg/L	0.10000	1 Topan	109	80-120	<u> </u>		
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	0.106	0.0030	0.00007	mg/L	0.10000		106	80-120			
Boron	1.14	0.0400	0.0060	mg/L	1.0000		114	80-120			
Cadmium	0.106	0.0010	0.00006	mg/L	0.10000		106	80-120			
Calcium	1.03	0.500	0.0104	mg/L	1.0000		103	80-120			
Chromium	0.107	0.0100	0.0003	mg/L	0.10000		107	80-120			
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Copper	0.107	0.0250	0.0003	mg/L	0.10000		107	80-120			
Lead	0.0980	0.0050	0.00007	mg/L	0.10000		98	80-120			
Molybdenum	0.110	0.0100	0.0006	mg/L	0.10000		110	80-120			
Nickel	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Selenium	0.102	0.0100	0.0014	mg/L	0.10000		102	80-120			
Silver	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Thallium	0.101	0.0010	0.00005	mg/L	0.10000		101	80-120			
Vanadium	0.108	0.0100	0.0014	mg/L	0.10000		108	80-120			
Zinc	0.107	0.0100	0.0013	mg/L	0.10000		107	80-120			
Lithium	0.110	0.0500	0.0010	mg/L	0.10000		110	80-120			
Liunum	0.110	0.0000	0.0011	my/L	0.10000		110	00-120			



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

Report No.: AAC0910

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030831 - EPA 3005A											
Matrix Spike (7030831-MS1)		So	ırce: AAC09	09-01		Prepar	ed: 03/29/	17 Analyz	ed: 03/30	/17	
Antimony	0.104	0.0030	0.0003	mg/L	0.10000	ND	104	75-125			
Arsenic	0.101	0.0050	0.0004	mg/L	0.10000	ND	101	75-125			
Barium	0.134	0.0100	0.0003	mg/L	0.10000	0.0380	96	75-125			
Beryllium	0.105	0.0030	0.00007	mg/L	0.10000	ND	105	75-125			
Boron	1.14	0.0400	0.0060	mg/L	1.0000	0.0192	112	75-125			
Cadmium	0.106	0.0010	0.00006	mg/L	0.10000	ND	106	75-125			
Calcium	15.9	25.0	0.522	mg/L	1.0000	13.9	200	75-125			QM-02, J
Chromium	0.110	0.0100	0.0003	mg/L	0.10000	ND	110	75-125			
Cobalt	0.106	0.0100	0.0005	mg/L	0.10000	0.0007	106	75-125			
Copper	0.105	0.0250	0.0003	mg/L	0.10000	ND	105	75-125			
Lead	0.0969	0.0050	0.00007	mg/L	0.10000	ND	97	75-125			
Molybdenum	0.101	0.0100	0.0006	mg/L	0.10000	ND	101	75-125			
Nickel	0.107	0.0100	0.0003	mg/L	0.10000	0.0007	106	75-125			
Selenium	0.105	0.0100	0.0014	mg/L	0.10000	ND	105	75-125			
Silver	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125			
Thallium	0.0989	0.0010	0.00005	mg/L	0.10000	ND	99	75-125			
Vanadium	0.109	0.0100	0.0014	mg/L	0.10000	ND	109	75-125			
Zinc	0.106	0.0100	0.0013	mg/L	0.10000	ND	106	75-125			
Lithium	0.118	0.0500	0.0011	mg/L	0.10000	0.0115	106	75-125			
Matrix Spike Dup (7030831-MSD1)		So	ırce: AAC09	09-01		Prenar	P4. U3/30/	17 Analyz	eq. 03/30	/17	
Antimony	0.107	0.0030	0.0003	mg/L	0.10000	ND	107	75-125	3	20	
Arsenic	0.101	0.0050	0.0004	mg/L	0.10000	ND	101	75-125	0.1	20	
Barium	0.136	0.0100	0.0003	mg/L	0.10000	0.0380	98	75-125	2	20	
Beryllium	0.103	0.0030	0.00007	mg/L	0.10000	ND	103	75-125	2	20	
Boron	1.16	0.0400	0.0060	mg/L	1.0000	0.0192	114	75-125	1	20	
Cadmium	0.105	0.0010	0.00006	mg/L	0.10000	ND	105	75-125	0.5	20	
Calcium	15.4	25.0	0.522	mg/L	1.0000	13.9	149	75-125	3	20	QM-02, J
Chromium	0.110	0.0100	0.0003	mg/L	0.10000	ND	110	75-125	0.6	20	QIVI 02, 0
Cobalt	0.108	0.0100	0.0005	mg/L	0.10000	0.0007	107	75-125	1	20	
Copper	0.108	0.0250	0.0003	mg/L	0.10000	ND	108	75-125	3	20	
Lead	0.0972	0.0050	0.00007	mg/L	0.10000	ND	97	75-125	0.4	20	
Molybdenum	0.105	0.0100	0.0006	mg/L	0.10000	ND	105	75-125 75-125	3	20	
Nickel	0.107	0.0100	0.0003		0.10000	0.0007	103	75-125 75-125	0.4	20	
Selenium	0.107	0.0100	0.0003	mg/L mg/L	0.10000	0.0007 ND		75-125 75-125	5	20	
	0.101	0.0100	0.0014	_			101				
Silver	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125	0.9	20	
Thallium				mg/L	0.10000	ND	98	75-125	0.6	20	
Vanadium	0.109	0.0100	0.0014	mg/L	0.10000	ND	109	75-125	0.8	20	
Zinc	0.104	0.0100	0.0013	mg/L	0.10000	ND	104	75-125	2	20	
Lithium	0.112	0.0500	0.0011	mg/L	0.10000	0.0115	100	75-125	5	20	

April 03, 2017



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 April 03, 2017

Report No.: AAC0910

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030831 - EPA 3005A											
Post Spike (7030831-PS1)		Soi	urce: AAC09	09-01		Prepare	ed: 03/29/	17 Analyz	ed: 03/30/	17	
Antimony	100			ug/L	100.00	0.0193	100	80-120			
Arsenic	100			ug/L	100.00	0.251	100	80-120			
Barium	138			ug/L	100.00	38.0	100	80-120			
Beryllium	103			ug/L	100.00	0.0067	103	80-120			
Boron	1120			ug/L	1000.0	19.2	111	80-120			
Cadmium	106			ug/L	100.00	-0.0195	106	80-120			
Calcium	14700			ug/L	1000.0	13900	86	80-120			
Chromium	110			ug/L	100.00	0.0294	110	80-120			
Cobalt	107			ug/L	100.00	0.672	106	80-120			
Copper	106			ug/L	100.00	-0.150	106	80-120			
Lead	97.2			ug/L	100.00	0.0077	97	80-120			
Molybdenum	107			ug/L	100.00	0.0307	107	80-120			
Nickel	104			ug/L	100.00	0.658	104	80-120			
Selenium	101			ug/L	100.00	0.229	100	80-120			
Silver	104			ug/L	100.00	0.0044	104	80-120			
Thallium	99.6			ug/L	100.00	0.0015	100	80-120			
Vanadium	110			ug/L	100.00	0.0259	110	80-120			
Zinc	106			ug/L	100.00	0.432	106	80-120			
Lithium	123			ug/L	100.00	11.5	111	80-120			
Batch 7030865 - EPA 7470A											
Blank (7030865-BLK1)						Prepare	ed: 03/29/	17 Analyz	ed: 03/30/	17	
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030865-BS1)						Prepare	ed: 03/29/	17 Analyz	ed: 03/30/	17	
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			



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Attention: Mr. Joju Abraham

Report No.: AAC0910

April 03, 2017

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030865 - EPA 7470A											
Matrix Spike (7030865-MS1)		Sou	ırce: AAC09	09-05		Prepar	ed: 03/29/	17 Analyz	ed: 03/30/	17	
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7030865-MSD1))	Sou	ırce: AAC09	09-05		Prepar	ed: 03/29/	17 Analyz	ed: 03/30/	17	
Mercury	0.00231	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	1	20	
Post Spike (7030865-PS1)		Sou	ırce: AAC09	09-05		Prepar	ed: 03/29/	17 Analyz	ed: 03/30/	17	
Mercury	1.72			ug/L	1.6667	-0.00556	103	80-120			



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 April 03, 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.



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

Report Notes

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR

Page 17 of 19

April 03, 2017

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

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PAGE:

5 - NaOH/ZnAc, <6°C 6 - Na₂S₂O₃, <6°C 7 - ≤6°C not frozen REMARKS/ADDITIONAL INFORMATION 2 - H₂SO4, ≤6°C 4 - NaOH, ≤6°C L- LIQUID P- PRODUCT PRESERVATION 1- HCl. ≤6°C SL - SLUDGE SD SOUD 3- HNO3 S- SOIL A- AIR "MATRIX CODES: DRINKING WATER SW - SURFACE WATER GW - GROUNDWATER MW - WASTEWATER ST - STORM WATER A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE V - VOA VIAL S - STERILE O - OTHER P - PLASTIC WATER racking # . **≥ AB*** 141*0* SHO 0830 **⊿ < ⊕** ۵ FS OTHER DATE/TIME: CLIENT ANALYSIS REQUESTED Φ (OZE6/9186 978-MS) T (ERN. Radium 226 & 228 SPSU. (EPA 300.0 & SM 2540C) ٥ CI, F, 50, & TDS SAMPLE SHIPPED VIA UPS FED'EX RELINQUISHED BY:

(/ /) / / / / /

RELINQUISHED BY: (DT4T/0S08 A93) ۵. VI & III .qqA TZS haq slateM CONTACNER TYPE: RESERVATION; **Jo**# 60 OOZH **- 2 w** ⋖ **E** 0 _(C) n laburch@southernco.com SAMPLE IDENTIFICATION 130 Heath McCorkle HGWC-14 HGWC-18 HGWC-15 Maria Padilla FERB-2 FERB-1 FB-2 888784 DATE/TIME: 2/23/17 DATE/TIME: Plant Hammond - AP 1&2 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER 80 g ÿ **⊙ ~ < 0** × × × × × × M.Burch_{7/18} 0024 Т.Тютая REQUESTED COMPLETION DATE: MATRIX CODE. ≱ 241 Ralph McGill Blvd SE B10185 ₹ ₹ ₹ ₹ ≥ ≥ Lauren Petty Collection TIME SAMPLED BY AND TITLE N.Virgo (L/F/ PROJECT NAME/STATE 11:25 10:25 10.00 9.35 9:25 9.3 8 958 Manta, GA 30308 CLIENT NAME: Georgia Power **ECEIVED BY** 104-506-7239 **EPORT TO:** 0323/17 Collection DATE 03/23/17 03/23/17 03/23/17 03/23/17 03/23/17 03/23/17 PROJECT Page 18 of 19

2017 03 23 Hammond COCs.xlsx

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

LOG-IN CHECKLIST

Printed: 3/27/2017 12:05:30PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AAC0910

Date Received: 03/24/17 14:20 Logged In By: Mohammad M. Rahman

OBSERVATIONS

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

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	NO
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

There were 2 containers present instead of 1 as listed on the COC for Radium. MMR





April 19, 2017

Maria Padilla **GA Power** 2480 Maner Rd Atlanta, GA 30339

RE: Project: AAC0910 Plant Hammond

Pace Project No.: 30214375

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on March 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.

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

Sincerely,

Jacquelyn Collins

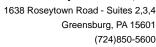
Sugnely allins

jacquelyn.collins@pacelabs.com

(724)850-5612 **Project Manager**

Enclosures







CERTIFICATIONS

Project: AAC0910 Plant Hammond

Pace Project No.: 30214375

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 #: 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

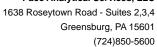
Tennessee Certification #: TN2867

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

Washington Certification #: C868 West Virginia DEP Certification #: 143 West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L



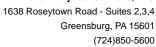


SAMPLE SUMMARY

Project: AAC0910 Plant Hammond

Pace Project No.: 30214375

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30214375001	HGWC-14	Water	03/23/17 09:35	03/28/17 10:10
30214375002	HGWC-15	Water	03/23/17 11:25	03/28/17 10:10
30214375003	HGWC-18	Water	03/23/17 10:25	03/28/17 10:10
30214375004	FB-1	Water	03/23/17 09:25	03/28/17 10:10
30214375005	FERB-1	Water	03/23/17 09:30	03/28/17 10:10
30214375006	FB-2	Water	03/23/17 09:55	03/28/17 10:10
30214375007	FERB-2	Water	03/23/17 10:00	03/28/17 10:10



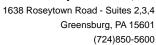


SAMPLE ANALYTE COUNT

Project: AAC0910 Plant Hammond

Pace Project No.: 30214375

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30214375001	HGWC-14	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214375002	HGWC-15	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214375003	HGWC-18	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214375004	FB-1	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214375005	FERB-1	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214375006	FB-2	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214375007	FERB-2	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0910 Plant Hammond

Pace Project No.: 30214375

Sample: HGWC-14	Lab ID: 302143		Received:	03/28/17 10:10	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.228 ± 0.165 (0.289) C:99% T:NA	pCi/L	04/07/17 08:31	13982-63-3	
Radium-228	EPA 9320	0.938 ± 0.444 (0.725) C:73% T:77%	pCi/L	04/13/17 12:29	15262-20-1	
Total Radium	Total Radium Calculation	1.17 ± 0.609 (1.01)	pCi/L	04/19/17 06:35	5 7440-14-4	
Sample: HGWC-15	Lab ID: 302143		Received:	03/28/17 10:10	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.154 ± 0.131 (0.224) C:86% T:NA	pCi/L	04/07/17 08:31	13982-63-3	
Radium-228	EPA 9320	0.508 ± 0.339 (0.635) C:72% T:90%	pCi/L	04/13/17 12:30	15262-20-1	
Total Radium	Total Radium Calculation	0.662 ± 0.470 (0.859)	pCi/L	04/19/17 06:35	5 7440-14-4	
Sample: HGWC-18 PWS:	Lab ID: 302143 Site ID:	75003 Collected: 03/23/17 10:25 Sample Type:	Received:	03/28/17 10:10	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.694 ± 0.243 (0.209)	pCi/L	04/07/17 08:31	13982-63-3	
Radium-228	EPA 9320	C:96% T:NA 1.12 ± 0.490 (0.798)	pCi/L	04/13/17 12:30	15262-20-1	
Total Radium	Total Radium Calculation	C:72% T:81% 1.81 ± 0.733 (1.01)	pCi/L	04/19/17 06:35	5 7440-14-4	
Sample: FB-1 PWS:	Lab ID: 302143 Site ID:	75004 Collected: 03/23/17 09:25 Sample Type:	Received:	03/28/17 10:10	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0310 ± 0.110 (0.275)	pCi/L	04/07/17 08:32	13982-63-3	
Radium-228	EPA 9320	C:89% T:NA 0.640 ± 0.487 (0.958)	pCi/L	04/13/17 12:30	15262-20-1	
Total Radium	Total Radium Calculation	C:71% T:72% 0.671 ± 0.597 (1.23)	pCi/L	04/19/17 06:35	5 7440-14-4	
Sample: FERB-1 PWS:	Lab ID: 302143 Site ID:	75005 Collected: 03/23/17 09:30 Sample Type:	Received:	03/28/17 10:10	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0905 ± 0.122 (0.391)	pCi/L	04/07/17 08:33		
Radium-228	EPA 9320	C:81% T:NA 0.353 ± 0.412 (0.866) C:74% T:77%	pCi/L	04/13/17 12:30		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0910 Plant Hammond

Pace Project No.: 30214375

Sample: FERB-1 Lab ID: 30214375005 Collected: 03/23/17 09:30 Received: 03/28/17 10:10 Matrix: Water

PWS: Site ID: Sample Type:

 Parameters
 Method
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 CAS No.
 Qual

 Total Radium
 Total Radium
 0.353 ± 0.534 (1.26)
 pCi/L
 04/19/17 06:35 7440-14-4

Calculation

Sample: FB-2 Lab ID: 30214375006 Collected: 03/23/17 09:55 Received: 03/28/17 10:10 Matrix: Water

PWS: Site ID: Sample Type:

Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 -0.0566 ± 0.123 (0.375) Radium-226 pCi/L 04/07/17 08:33 13982-63-3 C:78% T:NA Radium-228 EPA 9320 $-0.139 \pm 0.370 \quad (0.895)$ pCi/L 04/13/17 12:30 15262-20-1 C:74% T:76% Total Radium Total Radium 0.000 ± 0.493 (1.27) pCi/L 04/19/17 06:35 7440-14-4 Calculation

Sample: FERB-2 Lab ID: 30214375007 Collected: 03/23/17 10:00 Received: 03/28/17 10:10 Matrix: Water

PWS: Site ID: Sample Type:

Qual **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. EPA 9315 -0.0372 ± 0.0573 (0.227) Radium-226 04/07/17 08:32 13982-63-3 pCi/L C:86% T:NA EPA 9320 $0.427 \pm 0.430 \quad (0.890)$ Radium-228 pCi/L 04/13/17 12:27 15262-20-1 C:79% T:73% Total Radium Total Radium 0.427 ± 0.487 (1.12) pCi/L 04/19/17 06:35 7440-14-4 Calculation



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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0910 Plant Hammond

Pace Project No.: 30214375

QC Batch: 253967 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30214375001, 30214375002, 30214375003, 30214375004, 30214375005, 30214375006, 30214375007

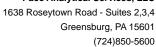
METHOD BLANK: 1250173 Matrix: Water

Associated Lab Samples: 30214375001, 30214375002, 30214375003, 30214375004, 30214375005, 30214375006, 30214375007

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.0394 ± 0.0986 (0.239) C:91% T:NA pCi/L 04/07/17 08:29

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0910 Plant Hammond

Pace Project No.: 30214375

QC Batch: 254543 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30214375001, 30214375002, 30214375003, 30214375004, 30214375005, 30214375006, 30214375007

METHOD BLANK: 1253320 Matrix: Water

Associated Lab Samples: 30214375001, 30214375002, 30214375003, 30214375004, 30214375005, 30214375006, 30214375007

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 -0.123 ± 0.298 (0.731) C:79% T:79%
 pCi/L
 04/13/17 12:29

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.



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

QUALIFIERS

Project: AAC0910 Plant Hammond

Pace Project No.: 30214375

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

Date: 04/19/2017 12:41 PM

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#:30214375

Chain of Custody

Pace Analytical "

LAB USE ONLY EQuIS deliverable required (EDD 7564). 8 T O O Results Requested By: 4/19/2017 いつり e B 00 Requested Analysis 9 Date/Time Radium 226, 228, Total × × × 3/28/17 Owner Received Date: Preserved Containers SOS S **ЕО**ИН Matrix Ø Ŋ 8 ≥ ≥ ≥ ≥ Received By AAC0910-06 AAC0910-04 AAC0910-05 AAC0910-01 AAC0910-02 AAC0910-03 AAC0910-07 Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Collect Date/Time Lab ID Date/Time Pace - Pittsburgh Subcontract To: 3/23/2017 11:25 3/23/2017 10:25 3/23/2017 10:00 Stes. 2,3,4 3/23/2017 9:35 3/23/2017 9:25 3/23/2017 9:30 3/23/2017 9:55 Workorder Name: Sample G G ŋ G G G Peachtree Corners, GA 30092 Workorder: AAC0910 110 Technology Parkway Pace Analytical Atlanta Phone (770)-734-4200 Transfers | Released By Item Sample ID **Betsy McDaniel** HGWC-14 HGWC-15 HGWC-18 FERB-1 FERB-2 Report To: FB-1 FB-2

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC Received on Ice Y or N Custody Seal Y or (N ပ 3 Cooler Temperature on Receipt

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

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Intact Nor N

Page 10 of 14

CHAIN OF CUSTODY RECORD

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

PAGE:

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Sample Condition Upon Receipt Pittsburgh Pace GA Project # 30 2 1 4 3 7 5 Client Name: Courier: K Fed Ex UPS USPS Client Commercial Pace Other 5103 2675 Tracking #: 6812 yes no 🔀 no Seals intact: Type of Ice: Wet Blue None MIA Thermometer Used N/A °C Correction Factor: N/A °C Final Temp: Observed Temp Cooler Temperature Temp should be above freezing to 6°C Date and Initials of person examining RTE 3/28/17 contents:_ No N/A Yes Comments: × Chain of Custody Present: × 2. Chain of Custody Filled Out: X 3. Chain of Custody Relinquished: X Sampler Name & Signature on COC: Х 5. Sample Labels match COC: WT Matrix: -Includes date/time/ID × 16. Samples Arrived within Hold Time: X Short Hold Time Analysis (<72hr remaining): X Rush Turn Around Time Requested: 8. 9. Sufficient Volume: 10. X Correct Containers Used: X -Pace Containers Used: X 11. Containers Intact: 12. Orthophosphate field filtered X 13. Organic Samples checked for dechlorination: X 14. Filtered volume received for Dissolved tests All containers have been checked for preservation. 15. pHC2 All containers needing preservation are found to be in X compliance with EPA recommendation. Initial when 3/28/17 Date/time of RTB preservation completed exceptions: VOA, coliform, TOC, O&G, Phenolics Lot # of added preservative 16. Headspace in VOA Vials (>6mm): 17. Trip Blank Present: Trip Blank Custody Seals Present Initial when Date: 3/28/17 Rad Aqueous Samples Screened > 0.5 mrem/hr RTB completed: Client Notification/ Resolution: Contacted By: . Date/Time: Person Contacted: Comments/ Resolution:

 \square 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

Analyst Mo			sample Matrix	
Ra-226	JC2	4/4/2017	34920	D.V.
Test	Analyst	Date:	Worklist	Matrix:

1250173 0.039 0.039 0.239 0.78 N/A Pass

MB MDC:

MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC:

Laboratory Control Sample Assessment

MB Sample ID MB concentration: M/B Counting Uncertainty:

Method Blank Assessment

17-003 38.230 0.25 0.501 19.059 1.055 1.055 -5.27 80.48% N/A Pass

LCSD (Y or N)?
LCS34920
4772017
17-003
38.230
0.25
0.504
18.964
0.892
15.009
1.086
5.49

Aliquot Volume (L. g, F): Target Conc. (PCi/L, g, F): Uncertainty (Calculated):

Result (pCift., g. F): LCS/LCSD Counting Uncertainty (pCift., g. F);

Numerical Performance Indicator:

Percent Recovery: Status vs Numerical Indicator: Status vs Recovery:

Count Date: Spike I.D.:

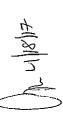
Spike Concentration (pCi/mL):

Volume Used (mL);

MS Status vs Recovery:	MSD Status vs Recovery:	Matrix Spike/Matrix Spike Duplicate Sample Assessment Sample J.D. Sample MS I.D. MS/ MSD Duplicate Status	
rass		Enter Duplicate sample 10s if other than LCS/LCSD in the space below.	sults are below the N
699		LCS34920 LCSD34920 15.009 1.096 15.339 1.055 NO -0.425 2.17% N/A Pass	pie of auplicate res
	Duplicate Sample Assessment	Sample I.D.: LCS34920 Enter Duplicate Sample I.D.: LCS34920 Enter Duplicate Sample I.D.: LCS34920 Enter Duplicate Sample Result (pCi/l., 9, F): 15.009 Other than Sample Duplicate Result (pCi/l., 9, F): 1.096 LCS/LCSD in the Sample Duplicate Result (pCi/l., 9, F): 1.095 Are sample and/or duplicate results below MDC? NO Duplicate Numerical Performance Indicator: 0.425 Duplicate Status vs Numerical Indicator: N/A Duplicate Status vs RPDI: 2.17% Duplicate Status vs RPDI: Pass	

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

Comments:



TAR DW QC Printed: 4/18/2017 4:01 PM

Face Analytical

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow. Ra-228 JJY 4/8/2017

MS Target Corncipolity 9, 17. MSD Target Corncipolity 9, 17. MSD Target Corncipolity 9, 17. Spike uncertainty (colding 9, 17.) Sample Result Counting Uncertainty (polity 9, 17.) Matrix Spike Result Counting Uncertainty (polity 9, 17.) Sample Matrix Spike Result Sample Matrix Spike Result Sample Matrix Spike Result MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MSD Numerical Performance Indicator: MSD Numerical Performance Indicator: MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MSD Status vs Recovery: MSD Status vs Recovery:						_								
	MS Target Conc.(p.g. F).	MSD Target Conc. (bCit., a, F):	Spike uncertainty (calculated):	Sample Result Counting Uncertainty (pCifl., q, F):	Matrix Spike Result Counting Uncertaint Counting	Matrix Spite Duglicate Sample Matrix Spike Duplicate Result:	MS Mimoring Uncertainty (politing F):	MSD Numerical Performance Indicator:	MS Percent Recovery:	MSD Percent Recovery:	MSD Status vs Numerical Indicator:	Status vs Numerical Indicator:	Mo Status vs Recovery:	WISU Status vs Recovery.

LCSD34998 4/13/2017 17-005 17-005 0.20 0.815 0.085 0.085 0.0847 0.0847 0.0847 0.0847 0.0847 0.0847 0.0847 0.0847 0.0847

5D (Y or N); LCS34998 4/13/2017 17-005 24-795 0.20 0.812 8.108 0.440 5.638 0.731 -1.08 92.30% NA

Volume Used (mL):
Aliquot Volume (L, g, F):
Target Conc. (pCirl., g, F):
Uncertainty (Calculated):

Result (pCi/L, g, F); LCS/LCSD Counting Uncertainty (pCi/L, g, F); Numerical Performance Indicator:

Percent Recovery: Status vs Numerical Indicator: Status vs Recovery

Duplicate Sample Assessment

Count Date:

Spike I.D.:

Spike Concentration (pCi/mL):

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 Solke Duniting to Duniting Country Spike Dupiticate Result	(Rased on the Duplicate Numerical Performance Indicator)	I SW	
		Enter Duplicate sample IDs if other than	LCS/LCSD in the space below.				esults are below th
	00034000	LCSD34998 5.638	0.731 6.026	N 0	-0.680 7.03%	N/A Pass	Tiple or duplicate re
Juplicate Sample Assessment	Sample I.D.:	Sample Result Country (1907), 9, F);	Sample Duplicate Result (Ocific, 9, F): Sample Duplicate Result (Ocific, 9, F):	Are sample and/or duplicate results below MDC? Duplicate Numerical Performance Indianace	(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Duplicate Status vs Numerical App.	Duplicate Status vs RPD:	The sample or duplicate precision is not applicable if either the sample or duplicate results are below the MnC

is vs RPD: Pass either the sample or duplicate results are below the MDC	
RPD: Pass if the sample or duplicate result	
pplicable if	
## Evaluation of duplicate precision is not a	Comments:

Comments:



Ra-228 NELAC DW2 Printed: 4/18/2017 4:03 PM



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: AAE0736

June 01, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

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All test results relate only to the samples analyzed.



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 01, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-1	AAE0736-01	Ground Water	05/22/17 13:15	05/23/17 13:40
HGWA-2	AAE0736-02	Ground Water	05/22/17 14:20	05/23/17 13:40
HGWA-3	AAE0736-03	Ground Water	05/22/17 15:10	05/23/17 13:40



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 01, 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.



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

Project: CCR Event

Lab Number ID: AAE0736-01

Date/Time Received: 5/23/2017 1:40:00PM

June 01, 2017

Report No.: AAE0736 Client ID: HGWA-1

Date/Time Sampled: 5/22/2017 1:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	338	25	10	mg/L	SM 2540 C		1	05/24/17 14:43	05/24/17 14:43	7050783	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0		1	05/24/17 09:27	05/24/17 12:09	7050774	SLH
Fluoride	0.12	0.30	0.004	mg/L	EPA 300.0	J	1	05/24/17 09:27	05/24/17 12:09	7050774	SLH
Sulfate	77	5.0	0.46	mg/L	EPA 300.0		5	05/24/17 09:27	05/26/17 18:05	7050774	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Barium	0.0281	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Boron	0.0782	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Calcium	107	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 08:30	05/25/17 19:55	7050763	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 19:49	7050763	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 09:25	05/30/17 14:06	7050854	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0736

Client ID: HGWA-2

Date/Time Sampled: 5/22/2017 2:20:00PM

Matrix: Ground Water

June 01, 2017

Project: CCR Event

Lab Number ID: AAE0736-02

Date/Time Received: 5/23/2017 1:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	92	25	10	mg/L	SM 2540 C		1	05/24/17 14:43	05/24/17 14:43	7050783	JPT
Inorganic Anions											
Chloride	5.9	0.25	0.01	mg/L	EPA 300.0		1	05/24/17 09:27	05/24/17 13:11	7050774	SLH
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/24/17 09:27	05/24/17 13:11	7050774	SLH
Sulfate	48	1.0	0.09	mg/L	EPA 300.0		1	05/24/17 09:27	05/24/17 13:11	7050774	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Barium	0.103	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Beryllium	0.0001	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Boron	0.0475	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Calcium	17.8	5.00	0.522	mg/L	EPA 6020B		50	05/24/17 08:30	05/25/17 20:18	7050763	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Cobalt	0.0263	0.0100	0.0005	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Lead	0.00009	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:12	7050763	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 09:25	05/30/17 14:08	7050854	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0736

Client ID: HGWA-3

Date/Time Sampled: 5/22/2017 3:10:00PM

Matrix: Ground Water

June 01, 2017

Project: CCR Event

Lab Number ID: AAE0736-03

Date/Time Received: 5/23/2017 1:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	263	25	10	mg/L	SM 2540 C		1	05/24/17 14:43	05/24/17 14:43	7050783	JPT
Inorganic Anions											
Chloride	6.5	0.25	0.01	mg/L	EPA 300.0		1	05/24/17 09:27	05/24/17 13:32	7050774	SLH
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	05/24/17 09:27	05/24/17 13:32	7050774	SLH
Sulfate	46	1.0	0.09	mg/L	EPA 300.0		1	05/24/17 09:27	05/24/17 13:32	7050774	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Barium	0.117	0.0500	0.0013	mg/L	EPA 6020B		5	05/24/17 08:30	05/30/17 14:59	7050763	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Boron	0.0131	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Calcium	71.5	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 08:30	05/25/17 20:29	7050763	CSW
Chromium	0.0007	0.0100	0.0003	mg/L	EPA 6020B	J	1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Lithium	0.0030	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 08:30	05/25/17 20:23	7050763	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 09:25	05/30/17 14:11	7050854	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 01, 2017

Report No.: AAE0736

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050783 - SM 2540 C											
Blank (7050783-BLK1)						Prepare	ed & Analy	/zed: 05/2	4/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7050783-BS1)						Prepare	ed & Analy	/zed: 05/2	4/17		
Total Dissolved Solids	372	25	10	mg/L	400.00		93	84-108			
Duplicate (7050783-DUP1) Source: AAE0736-03 Prepared & Analyzed: 05/24/17											
Total Dissolved Solids	253	25	10	mg/L		263			4	10	



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0736

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050774 - EPA 300.0											
Blank (7050774-BLK1)						Prepare	ed & Analy	/zed: 05/24	4/17		
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 (7050774-BS1)						Prepare	ed & Analy	/zed: 05/24	4/17		
Chloride	9.92	0.25	0.01	mg/L	10.020		99	90-110			
Fluoride	9.74	0.30	0.004	mg/L	10.020		97	90-110			
Sulfate	10.0	1.0	0.09	mg/L	10.050		100	90-110			
Matrix Spike (7050774-MS1)		Soi	ırce: AAE07	36-01		Prepare	ed & Analy	zed: 05/2	4/17		
Chloride	15.0	0.25	0.01	mg/L	10.020	4.57	104	90-110			
Fluoride	10.4	0.30	0.004	mg/L	10.020	0.12	103	90-110			
Sulfate	75.4	1.0	0.09	mg/L	10.050	72.9	24	90-110			QM-02
Matrix Spike (7050774-MS2)		Soi	ırce: AAE07	38-03		Prepare	ed & Analy	/zed: 05/24	4/17		
Chloride	11.6	0.25	0.01	mg/L	10.020	1.95	97	90-110			
Fluoride	9.96	0.30	0.004	mg/L	10.020	0.02	99	90-110			
Sulfate	11.6	1.0	0.09	mg/L	10.050	1.52	100	90-110			
Matrix Spike Dup (7050774-MSD1)		Source: AAE0736-01			Prepare	ed & Analy	/zed: 05/24	4/17			
Chloride	15.0	0.25	0.01	mg/L	10.020	4.57	104	90-110	0.2	15	
Fluoride	10.4	0.30	0.004	mg/L	10.020	0.12	103	90-110	0.3	15	

June 01, 2017



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 June 01, 2017

Report No.: AAE0736

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050763 - EPA 3005A											
Blank (7050763-BLK1)						Prepare	ed: 05/24/	17 Analyz	ed: 05/25/	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	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							
				J							
LCS (7050763-BS1)	0.440	0.0000	0.0000		0.40000	Prepare		17 Analyz	ed: 05/25/	17	
Antimony	0.110	0.0030	0.0003	mg/L	0.10000		110	80-120			
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000		103	80-120			
Barium 	0.107	0.0100	0.0003	mg/L	0.10000		107	80-120			
Beryllium _	0.102	0.0030	0.00007	mg/L	0.10000		102	80-120			
Boron	1.01	0.0400	0.0060	mg/L	1.0000		101	80-120			
Cadmium	0.103	0.0010	0.00006	mg/L	0.10000		103	80-120			
Calcium	1.01	0.500	0.0104	mg/L	1.0000		101	80-120			
Chromium	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.102	0.0250	0.0003	mg/L	0.10000		102	80-120			
Lead	0.104	0.0050	0.00007	mg/L	0.10000		104	80-120			
Molybdenum	0.111	0.0100	0.0006	mg/L	0.10000		111	80-120			
Nickel	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Selenium	0.105	0.0100	0.0014	mg/L	0.10000		105	80-120			
Silver	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Thallium	0.106	0.0010	0.00005	mg/L	0.10000		106	80-120			
Vanadium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Zinc	0.103	0.0100	0.0013	mg/L	0.10000		103	80-120			
Lithium	0.102	0.0500	0.0011	mg/L	0.10000		102	80-120			



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Report No.: AAE0736

Metals, Total - Quality Control

June 01, 2017

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050763 - EPA 3005A											
Matrix Spike (7050763-MS1)		Sou	ırce: AAE07	37-01		Prepare	ed: 05/24/	17 Analyz	ed: 05/25/	17	
Antimony	0.112	0.0030	0.0003	mg/L	0.10000	ND	112	75-125			
Arsenic	0.112	0.0050	0.0004	mg/L	0.10000	0.0034	108	75-125			
Barium	0.287	0.100	0.0027	mg/L	0.10000	0.197	90	75-125			
Beryllium	0.0923	0.0030	0.00007	mg/L	0.10000	ND	92	75-125			
Boron	26.8	2.00	0.302	mg/L	1.0000	26.0	79	75-125			
Cadmium	0.104	0.0010	0.00006	mg/L	0.10000	0.0003	103	75-125			
Calcium	909	250	5.22	mg/L	1.0000	885	NR	75-125			QM-02
Chromium	0.107	0.0100	0.0003	mg/L	0.10000	0.0004	107	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	0.0008	101	75-125			
Copper	0.0949	0.0250	0.0003	mg/L	0.10000	0.0003	95	75-125			
Lead	0.0977	0.0050	0.00007	mg/L	0.10000	ND	98	75-125			
Molybdenum	0.133	0.0100	0.0006	mg/L	0.10000	0.0208	112	75-125			
Nickel	0.102	0.0100	0.0003	mg/L	0.10000	0.0027	99	75-125			
Selenium	0.118	0.0100	0.0014	mg/L	0.10000	0.0094	109	75-125			
Silver	0.0960	0.0100	0.0003	mg/L	0.10000	ND	96	75-125			
Thallium	0.105	0.0010	0.00005	mg/L	0.10000	0.0008	105	75-125			
Vanadium	0.110	0.0100	0.0014	mg/L	0.10000	ND	110	75-125			
Zinc	0.0985	0.0100	0.0013	mg/L	0.10000	0.0018	97	75-125			
Lithium	0.109	0.0500	0.0011	mg/L	0.10000	0.0167	92	75-125			
Matrix Spike Dup (7050763-MSD1)		Soi	ırce: AAE07	37-01		Prepare	ed: 05/24/	17 Analyz	ed: 05/25/	17	
Antimony	0.111	0.0030	0.0003	mg/L	0.10000	ND.	111	75-125	0.6	20	
Arsenic	0.111	0.0050	0.0004	mg/L	0.10000	0.0034	108	75-125	8.0	20	
Barium	0.290	0.100	0.0027	mg/L	0.10000	0.197	93	75-125	1	20	
Beryllium	0.0951	0.0030	0.00007	mg/L	0.10000	ND	95	75-125	3	20	
Boron	27.1	2.00	0.302	mg/L	1.0000	26.0	114	75-125	1	20	
Cadmium	0.103	0.0010	0.00006	mg/L	0.10000	0.0003	103	75-125	0.9	20	
Calcium	926	250	5.22	mg/L	1.0000	885	NR	75-125	2	20	QM-02
Chromium	0.107	0.0100	0.0003	mg/L	0.10000	0.0004	107	75-125	0.008	20	
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	0.0008	101	75-125	0.4	20	
Copper	0.0961	0.0250	0.0003	mg/L	0.10000	0.0003	96	75-125	1	20	
Lead	0.0977	0.0050	0.00007	mg/L	0.10000	ND	98	75-125	0.09	20	
Molybdenum	0.133	0.0100	0.0006	mg/L	0.10000	0.0208	112	75-125	0.03	20	
Nickel	0.101	0.0100	0.0003	mg/L	0.10000	0.0027	99	75-125	0.2	20	
Selenium	0.119	0.0100	0.0014	mg/L	0.10000	0.0094	110	75-125	0.9	20	
Silver	0.0960	0.0100	0.0003	mg/L	0.10000	ND	96	75-125	0.04	20	
Thallium	0.103	0.0010	0.00005	mg/L	0.10000	0.0008	103	75-125	2	20	
Vanadium	0.110	0.0100	0.0014	mg/L	0.10000	ND	110	75-125	0.005	20	
Zinc	0.0991	0.0100	0.0013	mg/L	0.10000	0.0018	97	75-125	0.6	20	
Lithium	0.111	0.0500	0.0011	mg/L	0.10000	0.0167	94	75-125	2	20	
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Environmental Monitoring & Laboratory Analysis 110 Technology Parkway, Peachtree Corners, GA 30092 (770) 734-4200 FAX (770) 734-4201

Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham June 01, 2017

Report No.: AAE0736

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050763 - EPA 3005A											
Post Spike (7050763-PS1)		So	urce: AAE07	37-01		Prepare	ed: 05/24/	17 Analyz	ed: 05/25	/17	
Antimony	111			ug/L	100.00	0.177	111	80-120			
Arsenic	109			ug/L	100.00	3.44	105	80-120			
Barium	285			ug/L	100.00	197	88	80-120			
Beryllium	93.0			ug/L	100.00	0.0211	93	80-120			
Boron	28300			ug/L	1000.0	26000	228	80-120			QM-02
Cadmium	102			ug/L	100.00	0.299	101	80-120			
Calcium	900000			ug/L	1000.0	885000	NR	80-120			QM-02
Chromium	108			ug/L	100.00	0.358	108	80-120			
Cobalt	102			ug/L	100.00	0.799	101	80-120			
Copper	94.0			ug/L	100.00	0.315	94	80-120			
Lead	97.3			ug/L	100.00	0.0385	97	80-120			
Molybdenum	133			ug/L	100.00	20.8	112	80-120			
Nickel	101			ug/L	100.00	2.67	98	80-120			
Selenium	118			ug/L	100.00	9.41	108	80-120			
Silver	96.1			ug/L	100.00	0.0111	96	80-120			
Thallium	102			ug/L	100.00	0.778	101	80-120			
Vanadium	110			ug/L	100.00	0.754	110	80-120			
Zinc	96.5			ug/L	100.00	1.80	95	80-120			
Lithium	111			ug/L	100.00	16.7	95	80-120			
Batch 7050854 - EPA 7470A											
Blank (7050854-BLK1)						Prepare	ed & Analy	yzed: 05/30	0/17		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7050854-BS1)						Prepare	ed & Analy	yzed: 05/30	0/17		
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3		94	80-120			



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

Report No.: AAE0736

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050854 - EPA 7470A											
Matrix Spike (7050854-MS1)		Sou	ırce: AAE07	70-02		Prepare	ed & Analy	/zed: 05/30	0/17		
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (7050854-MSD1)		Sou	ırce: AAE07	70-02		Prepare					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125	2	20	
Post Spike (7050854-PS1)		Sou	ırce: AAE07	70-02		Prepared & Analyzed: 05/30/17					
Mercury	1.72			ug/L	1.6667	-0.00163	103	80-120			

June 01, 2017



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

June 01, 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 Services, Inc. 110 TECHNOLOGY BARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 FAX (770) 734-4201 : www.asi-lab.com Pace Analytical "

11

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PAGE

5 - NaOHZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - ≤6°C not frozen REMARKS/ADDITIONAL INFORMATION 2 - H₂SO₄, ≤6°C 4 - NaOH, 56°C P- PRODUCT PRESERVATION 1. HCl. ≤6°C SL. SLUDGE A - AIR L - LIQUID SD- SOUD 3- HNO3 MATRIX CODES. DRINKING WATER SW - SURFACE WATER GW - GROUNDWATER ST - STORM WATER **NW- WASTEWATER** A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE V - VOA VIAL S - STERILE O - OTHER P - PLASTIC W - WATER 3 S S ∢o ÷ jo jz∋ Σo w α OTHER DATE/TIME: DATE/TIME: ANALYSIS REQUESTED Radium 226 & 228 (SW-845 9315/9320) က N 0 (20) 8 5M 2540C) CI, F, SO, & TDS RELINGUISHED BY: (g) (#) (OTATIOS PS A93) <u>a</u> VI 8 III GOA TOS TRY elsteM CONTAINER TYPE: **50**# laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGWA-1 HGWA-2 HGWA-3 Maria Padilla 08875a/ DATE/TIME: 5/22/2017 - 1530 DATE/TIME: Plant Hammond - AP 1&2 SS CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER * 0 ÿ 0 2 4 B × × U O ≥ L MATRIX CODE. REQUESTED COMPLETION DATE: ₹ ₹ ₹ 241 Ralph McGill Blvd SE B10185 Lauren Petty AMPLED BY AND TITLE Collection TIME PROJECT NAME/STATE 13:15 15:10 14:20 Markevious Thomas RECEIVED BY: Atlanta, GA 30308 CLIENT NAME Georgia Power 104-506-7239 REPORT TO: Collection DATE 05/22/17 06/22/17 05/22/17 PROJECT Page 14 of 15

nond Groundwater Sampling Forms.xlsx

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

LOG-IN CHECKLIST

Printed: 5/24/2017 9:15:51AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AAE0736

Date Received: 05/23/17 13:40 **Logged In By:** Mohammad M. Rahman

OBSERVATIONS

#Samples: 3 **#Containers:** 12

Minimum Temp(C): 2.5 Maximum Temp(C): 2.5 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:



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: AAE0812

June 02, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, LLC.

All test results relate only to the samples analyzed.



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

June 02, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-4	AAE0812-01	Water	05/23/17 09:40	05/24/17 13:05
HGWA-5	AAE0812-02	Water	05/23/17 09:52	05/24/17 13:05
HGWA-6	AAE0812-03	Water	05/23/17 10:55	05/24/17 13:05
HGWC-7	AAE0812-04	Water	05/23/17 11:00	05/24/17 13:05
HGWC-8	AAE0812-05	Water	05/23/17 12:25	05/24/17 13:05
HGWC-9	AAE0812-06	Water	05/23/17 13:55	05/24/17 13:05
Dup-1	AAE0812-07	Water	05/23/17 00:00	05/24/17 13:05
FB-1	AAE0812-08	Water	05/23/17 12:40	05/24/17 13:05



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

June 02, 2017

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.



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

Project: CCR Event

Lab Number ID: AAE0812-01

Date/Time Received: 5/24/2017 1:05:00PM

June 02, 2017

Report No.: AAE0812 Client ID: HGWA-4

Date/Time Sampled: 5/23/2017 9:40:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	183	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	4.5	0.25	0.01	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 14:59	7050892	SLH
Fluoride	0.01	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 14:59	7050892	SLH
Sulfate	1.5	1.0	0.09	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 14:59	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Barium	0.0227	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Boron	0.0159	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Calcium	43.0	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 17:19	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:43	7050802	KLH
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	05/30/17 11:45	05/30/17 15:26	7050855	MTC



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

Project: CCR Event

Report No.: AAE0812 Client ID: HGWA-5

Lab Number ID: AAE0812-02

Date/Time Sampled: 5/23/2017 9:52:00AM

Date/Time Received: 5/24/2017 1:05:00PM

June 02, 2017

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	134	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 16:42	7050892	SLH
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 16:42	7050892	SLH
Sulfate	21	1.0	0.09	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 16:42	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Barium	0.0496	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Boron	0.0095	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Calcium	24.2	5.00	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 17:25	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Lead	0.00009	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Lithium	0.0033	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 01:55	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:29	7050855	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Report No.: AAE0812 Client ID: HGWA-6

Lab Number ID: AAE0812-03

Date/Time Sampled: 5/23/2017 10:55:00AM

Date/Time Received: 5/24/2017 1:05:00PM

June 02, 2017

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	231	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	1.2	0.25	0.01	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 17:03	7050892	SLH
Fluoride	0.006	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 17:03	7050892	SLH
Sulfate	38	1.0	0.09	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 17:03	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Barium	0.187	0.0500	0.0013	mg/L	EPA 6020B		5	05/24/17 17:50	06/01/17 12:06	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Boron	0.0167	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Calcium	49.1	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 17:30	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Lead	0.0003	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Lithium	0.0110	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:06	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:36	7050855	MTC



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

Report No.: AAE0812

Client ID: HGWC-7

Date/Time Sampled: 5/23/2017 11:00:00AM

Matrix: Water

June 02, 2017

Project: CCR Event

Lab Number ID: AAE0812-04

Date/Time Received: 5/24/2017 1:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	450	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	49	2.5	0.13	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 20:28	7050892	SLH
Fluoride	0.11	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 17:44	7050892	SLH
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 20:28	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Barium	0.0794	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Boron	0.910	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Calcium	93.3	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 17:56	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Lead	0.00008	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Molybdenum	0.0336	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Lithium	0.0026	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:29	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:38	7050855	MTC



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

Report No.: AAE0812 Project: CCR Event

Client ID: HGWC-8 Lab Number ID: AAE0812-05

Date/Time Sampled: 5/23/2017 12:25:00PM Date/Time Received: 5/24/2017 1:05:00PM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	765	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	130	2.5	0.13	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 20:48	7050892	SLH
Fluoride	0.65	0.30	0.004	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 18:05	7050892	SLH
Sulfate	270	10	0.92	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 20:48	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Barium	0.0846	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Boron	2.32	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Cadmium	0.0003	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Calcium	140	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 18:02	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Molybdenum	0.482	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Thallium	0.00008	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Lithium	0.0029	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:40	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:41	7050855	MTC

June 02, 2017



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Report No.: AAE0812 Client ID: HGWC-9

Lab Number ID: AAE0812-06

Date/Time Sampled: 5/23/2017 1:55:00PM

Date/Time Received: 5/24/2017 1:05:00PM

June 02, 2017

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	939	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	150	5.0	0.26	mg/L	EPA 300.0		20	05/27/17 11:47	05/31/17 21:09	7050892	SLH
Fluoride	0.29	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 18:26	7050892	SLH
Sulfate	240	20	1.8	mg/L	EPA 300.0		20	05/27/17 11:47	05/31/17 21:09	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Barium	0.127	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Boron	2.29	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Calcium	181	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 18:08	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Molybdenum	0.0242	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Lithium	0.0048	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 02:52	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:43	7050855	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0812

Client ID: Dup-1

Date/Time Sampled: 5/23/2017 12:00:00AM

Matrix: Water

June 02, 2017

Project: CCR Event

Lab Number ID: AAE0812-07

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	lnit.
General Chemistry											
Total Dissolved Solids	451	25	10	mg/L	SM 2540 C		1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	50	2.5	0.13	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 21:30	7050892	SLH
Fluoride	0.11	0.30	0.004	mg/L	EPA 300.0	J	1	05/27/17 11:47	05/30/17 18:46	7050892	SLH
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	05/27/17 11:47	05/31/17 21:30	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Barium	0.0787	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Boron	0.966	0.0400	0.0060	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Calcium	98.5	25.0	0.522	mg/L	EPA 6020B		50	05/24/17 17:50	05/31/17 18:13	7050802	KLH
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Cobalt	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Lead	0.0002	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Molybdenum	0.0342	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Lithium	0.0027	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/27/17 03:03	7050802	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:45	7050855	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: **CCR Event**

Report No.: AAE0812 Client ID: FB-1 Lab Number ID: AAE0812-08

Date/Time Received: 5/24/2017 1:05:00PM

June 02, 2017

Date/Time Sampled: 5/23/2017 12:40:00PM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	18	25	10	mg/L	SM 2540 C	J	1	05/26/17 16:10	05/26/17 16:10	7050870	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 19:07	7050892	SLH
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 19:07	7050892	SLH
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/27/17 11:47	05/30/17 19:07	7050892	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Boron	0.0158	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Calcium	0.0219	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/24/17 17:50	05/26/17 20:23	7050803	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 15:48	7050855	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0812

June 02, 2017

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050870 - SM 2540 C											
Blank (7050870-BLK1)						Prepar	ed & Analy	yzed: 05/2	6/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7050870-BS1)						Prepar	ed & Analy	yzed: 05/2	6/17		
Total Dissolved Solids	399	25	10	mg/L	400.00		100	84-108			
Duplicate (7050870-DUP1)		Soi	urce: AAE08	312-02		Prepar	ed & Analy	yzed: 05/2	6/17		
Total Dissolved Solids	168	25	10	mg/L		134			23	10	QR-03
Duplicate (7050870-DUP2)		Soi	urce: AAE08	326-03		Prepar	ed & Analy	yzed: 05/2	6/17		
Total Dissolved Solids	75	25	10	mg/L		27			94	10	QR-03



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June 02, 2017

Report No.: AAE0812

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050892 - EPA 300.0											
Blank (7050892-BLK1)						Prepare	ed: 05/27/	17 Analyz	ed: 05/30	/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 (7050892-BS1)						Prepare	ed: 05/27/	17 Analyz	ed: 05/30	/17	
Chloride	10.8	0.25	0.01	mg/L	10.020		108	90-110			
Fluoride	10.6	0.30	0.004	mg/L	10.020		106	90-110			
Sulfate	11.0	1.0	0.09	mg/L	10.050		109	90-110			
Matrix Spike (7050892-MS1)		Soi	urce: AAE08	311-06		Prepare	ed: 05/27/	17 Analyz	ed: 05/30	/17	
Chloride	15.8	0.25	0.01	mg/L	10.020	5.70	101	90-110			
Fluoride	10.4	0.30	0.004	mg/L	10.020	0.15	102	90-110			
Sulfate	224	1.0	0.09	mg/L	10.050	235	NR	90-110			QM-02
Matrix Spike (7050892-MS2)		Soi	urce: AAE08	312-03		Prepare	ed: 05/27/	17 Analyz	ed: 05/30	/17	
Chloride	11.6	0.25	0.01	mg/L	10.020	1.21	104	90-110			
Fluoride	10.1	0.30	0.004	mg/L	10.020	0.006	101	90-110			
Sulfate	44.2	1.0	0.09	mg/L	10.050	37.5	66	90-110			QM-02
Matrix Spike Dup (7050892-MSD1)		Soi	urce: AAE08	311-06		Prepare	ed: 05/27/	17 Analyz	ed: 05/30	/17	
Chloride	15.8	0.25	0.01	mg/L	10.020	5.70	101	90-110	0.2	15	
Fluoride	10.4	0.30	0.004	mg/L	10.020	0.15	102	90-110	0.1	15	
Sulfate	224	1.0	0.09	mg/L	10.050	235	NR	90-110	0.07	15	QM-02



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Attention: Mr. Joju Abraham

June 02, 2017

Report No.: AAE0812

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050802 - EPA 3005A											
Blank (7050802-BLK1)						Prepar	ed: 05/24/	17 Analyz	ed: 05/26/	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	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	0.0019	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7050802-BS1)						Prepar	ed: 05/24/	17 Analyz	ed: 05/26/	17	
Antimony	0.108	0.0030	0.0003	mg/L	0.10000		108	80-120			
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000		103	80-120			
Barium	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Beryllium	0.112	0.0030	0.00007	mg/L	0.10000		112	80-120			
Boron	1.09	0.0400	0.0060	mg/L	1.0000		109	80-120			
Cadmium	0.113	0.0010	0.00006	mg/L	0.10000		113	80-120			
Calcium	1.07	0.500	0.0104	mg/L	1.0000		107	80-120			
Chromium	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Copper	0.106	0.0250	0.0003	mg/L	0.10000		106	80-120			
Lead	0.104	0.0050	0.00007	mg/L	0.10000		104	80-120			
Molybdenum	0.111	0.0100	0.0006	mg/L	0.10000		111	80-120			
Nickel	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Selenium	0.103	0.0100	0.0014	mg/L	0.10000		103	80-120			
Silver	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Thallium	0.105	0.0010	0.00005	mg/L	0.10000		105	80-120			
Vanadium	0.109	0.0100	0.0014	mg/L	0.10000		109	80-120			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000		105	80-120			
Lithium	0.113	0.0500	0.0011	mg/L	0.10000		113	80-120			



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

Report No.: AAE0812

June 02, 2017

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050802 - EPA 3005A											
Matrix Spike (7050802-MS1)		Soi	urce: AAE07	70-01		Prepare	ed: 05/24/	17 Analyz	ed: 05/26/	17	
Antimony	0.118	0.0030	0.0003	mg/L	0.10000	0.0097	109	75-125			
Arsenic	0.104	0.0050	0.0004	mg/L	0.10000	ND	104	75-125			
Barium	0.139	0.0100	0.0003	mg/L	0.10000	0.0376	101	75-125			
Beryllium	0.108	0.0030	0.00007	mg/L	0.10000	ND	108	75-125			
Boron	1.07	0.0400	0.0060	mg/L	1.0000	0.0084	106	75-125			
Cadmium	0.109	0.0010	0.00006	mg/L	0.10000	ND	109	75-125			
Calcium	58.2	25.0	0.522	mg/L	1.0000	58.7	NR	75-125			QM-02
Chromium	0.105	0.0100	0.0003	mg/L	0.10000	0.0007	104	75-125			
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	0.0010	103	75-125			
Copper	0.103	0.0250	0.0003	mg/L	0.10000	0.0018	101	75-125			
Lead	0.101	0.0050	0.00007	mg/L	0.10000	0.00008	101	75-125			
Molybdenum	0.113	0.0100	0.0006	mg/L	0.10000	0.0027	111	75-125			
Nickel	0.117	0.0100	0.0003	mg/L	0.10000	0.0133	104	75-125			
Selenium	0.105	0.0100	0.0014	mg/L	0.10000	ND	105	75-125			
Silver	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125			
Thallium	0.103	0.0010	0.00005	mg/L	0.10000	0.0003	103	75-125			
Vanadium	0.108	0.0100	0.0014	mg/L	0.10000	ND	108	75-125			
Zinc	0.144	0.0100	0.0013	mg/L	0.10000	0.0420	102	75-125			
Lithium	0.113	0.0500	0.0011	mg/L	0.10000	0.0026	110	75-125			
Matrix Spike Dup (7050802-MSD1)		Soi	urce: AAE07	70-01		Prepare	ed: 05/24/	17 Analyz	ed: 05/26/	17	
Antimony	0.119	0.0030	0.0003	mg/L	0.10000	0.0097	109	75-125	0.6	20	
Arsenic	0.107	0.0050	0.0004	mg/L	0.10000	ND	107	75-125	2	20	
Barium	0.140	0.0100	0.0003	mg/L	0.10000	0.0376	102	75-125	0.5	20	
Beryllium	0.105	0.0030	0.00007	mg/L	0.10000	ND	105	75-125	3	20	
Boron	1.08	0.0400	0.0060	mg/L	1.0000	0.0084	107	75-125	1	20	
Cadmium	0.108	0.0010	0.00006	mg/L	0.10000	ND	108	75-125	0.6	20	
Calcium	58.6	25.0	0.522	mg/L	1.0000	58.7	NR	75-125	0.7	20	QM-02
Chromium	0.107	0.0100	0.0003	mg/L	0.10000	0.0007	107	75-125	2	20	
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000	0.0010	103	75-125	0.3	20	
Copper	0.104	0.0250	0.0003	mg/L	0.10000	0.0018	102	75-125	1	20	
Lead	0.0991	0.0050	0.00007	mg/L	0.10000	0.00008	99	75-125	2	20	
Molybdenum	0.113	0.0100	0.0006	mg/L	0.10000	0.0027	111	75-125	0.05	20	
Nickel	0.118	0.0100	0.0003	mg/L	0.10000	0.0133	104	75-125	0.5	20	
Selenium	0.107	0.0100	0.0014	mg/L	0.10000	ND	107	75-125	2	20	
Silver	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	1	20	
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	0.0003	101	75-125	2	20	
Vanadium	0.112	0.0100	0.0014	mg/L	0.10000	ND	112	75-125	4	20	
Zinc	0.144	0.0100	0.0013	mg/L	0.10000	0.0420	102	75-125	0.5	20	
Lithium	0.109	0.0500	0.0011	mg/L	0.10000	0.0026	107	75-125	3	20	
									-		



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

Report No.: AAE0812

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050802 - EPA 3005A											
Post Spike (7050802-PS1)		Sou	urce: AAE07	770-01		Prepare	ed: 05/24/	17 Analyz	ed: 05/26/	17	
Antimony	118			ug/L	100.00	9.73	108	80-120			
Arsenic	107			ug/L	100.00	0.214	107	80-120			
Barium	140			ug/L	100.00	37.6	102	80-120			
Beryllium	106			ug/L	100.00	0.0088	106	80-120			
Boron	1080			ug/L	1000.0	8.35	108	80-120			
Cadmium	109			ug/L	100.00	0.0285	109	80-120			
Calcium	59900			ug/L	1000.0	58700	118	80-120			
Chromium	106			ug/L	100.00	0.661	105	80-120			
Cobalt	105			ug/L	100.00	1.02	104	80-120			
Copper	102			ug/L	100.00	1.80	100	80-120			
Lead	101			ug/L	100.00	0.0818	101	80-120			
Molybdenum	114			ug/L	100.00	2.71	112	80-120			
Nickel	117			ug/L	100.00	13.3	104	80-120			
Selenium	107			ug/L	100.00	0.739	106	80-120			
Silver	104			ug/L	100.00	0.285	104	80-120			
Thallium	102			ug/L	100.00	0.298	101	80-120			
Vanadium	111			ug/L	100.00	0.909	110	80-120			
Zinc	146			ug/L	100.00	42.0	104	80-120			
Lithium	110			ug/L	100.00	2.63	107	80-120			
Batch 7050803 - EPA 3005A											
Blank (7050803-BLK1)						Prepare	ed: 05/24/	17 Analyz	ed: 05/26/	′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	0.0126	0.500	0.0104	mg/L							
Chromium	ND	0.0100	0.0003	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	0.0003	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							

June 02, 2017



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

Report No.: AAE0812

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050803 - EPA 3005A											
Blank (7050803-BLK1)						Prepare	ed: 05/24/	17 Analyz	ed: 05/26/	17	
Zinc	0.0017	0.0100	0.0013	mg/L		•					J
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7050803-BS1)						Prepare	ed: 05/24/	17 Analyz	ed: 05/26/	17	
Antimony	0.108	0.0030	0.0003	mg/L	0.10000		108	80-120			
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000		103	80-120			
Barium	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Beryllium	0.108	0.0030	0.00007	mg/L	0.10000		108	80-120			
Boron	1.08	0.0400	0.0060	mg/L	1.0000		108	80-120			
Cadmium	0.107	0.0010	0.00006	mg/L	0.10000		107	80-120			
Calcium	1.05	0.500	0.0104	mg/L	1.0000		105	80-120			
Chromium	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Cobalt	0.0992	0.0100	0.0005	mg/L	0.10000		99	80-120			
Copper	0.101	0.0250	0.0003	mg/L	0.10000		101	80-120			
Lead	0.0993	0.0050	0.00007	mg/L	0.10000		99	80-120			
Molybdenum	0.107	0.0100	0.0006	mg/L	0.10000		107	80-120			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Selenium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Silver	0.107	0.0100	0.0003	mg/L	0.10000		107	80-120			
Thallium	0.100	0.0010	0.00005	mg/L	0.10000		100	80-120			
Vanadium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Zinc	0.104	0.0100	0.0013	mg/L	0.10000		104	80-120			
Lithium	0.110	0.0500	0.0011	mg/L	0.10000		110	80-120			
Matrix Spike (7050803-MS1)		Soi	urce: AAE08	26-01		Prepare	ed: 05/24/	17 Analyz	ed: 05/26/	17	
Antimony	0.110	0.0030	0.0003	mg/L	0.10000	ND	110	75-125			
Arsenic	0.109	0.0050	0.0004	mg/L	0.10000	0.0006	109	75-125			
Barium	0.125	0.0100	0.0003	mg/L	0.10000	0.0217	103	75-125			
Beryllium	0.109	0.0030	0.00007	mg/L	0.10000	ND	109	75-125			
Boron	1.07	0.0400	0.0060	mg/L	1.0000	0.0133	106	75-125			
Cadmium	0.111	0.0010	0.00006	mg/L	0.10000	ND	111	75-125			
Calcium	62.8	25.0	0.522	mg/L	1.0000	64.0	NR	75-125			
Chromium	0.108	0.0100	0.0003	mg/L	0.10000	0.0011	107	75-125			
Cobalt	0.107	0.0100	0.0005	mg/L	0.10000	ND	107	75-125			
Copper	0.105	0.0250	0.0003	mg/L	0.10000	0.0003	104	75-125			
Lead	0.102	0.0050	0.00007	mg/L	0.10000	0.0001	102	75-125			
Molybdenum	0.115	0.0100	0.0006	mg/L	0.10000	0.0020	113	75-125			
Nickel	0.107	0.0100	0.0003	mg/L	0.10000	0.0009	106	75-125			
Selenium	0.108	0.0100	0.0014	mg/L	0.10000	ND	108	75-125			
Silver	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125			

June 02, 2017



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

Report No.: AAE0812

June 02, 2017

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050803 - EPA 3005A											
Matrix Spike (7050803-MS1)		Sou	urce: AAE08	26-01		Prepar	ed: 05/24/	17 Analyz	ed: 05/26	/17	
Thallium	0.104	0.0010	0.00005	mg/L	0.10000	0.0001	104	75-125			
Vanadium	0.112	0.0100	0.0014	mg/L	0.10000	ND	112	75-125			
Zinc	0.107	0.0100	0.0013	mg/L	0.10000	0.0029	104	75-125			
Lithium	0.105	0.0500	0.0011	mg/L	0.10000	ND	105	75-125			
Matrix Spike Dup (7050803-MSD1)		Soi	urce: AAE08	26-01		Prepar	ed: 05/24/	17 Analyz	ed: 05/26	/17	
Antimony	0.109	0.0030	0.0003	mg/L	0.10000	ND	109	75-125	0.6	20	
Arsenic	0.104	0.0050	0.0004	mg/L	0.10000	0.0006	104	75-125	5	20	
Barium	0.124	0.0100	0.0003	mg/L	0.10000	0.0217	102	75-125	0.6	20	
Beryllium	0.106	0.0030	0.00007	mg/L	0.10000	ND	106	75-125	3	20	
Boron	1.07	0.0400	0.0060	mg/L	1.0000	0.0133	106	75-125	0.09	20	
Cadmium	0.105	0.0010	0.00006	mg/L	0.10000	ND	105	75-125	5	20	
Calcium	63.4	25.0	0.522	mg/L	1.0000	64.0	NR	75-125	0.9	20	QM-02
Chromium	0.107	0.0100	0.0003	mg/L	0.10000	0.0011	106	75-125	0.5	20	
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000	ND	105	75-125	2	20	
Copper	0.102	0.0250	0.0003	mg/L	0.10000	0.0003	101	75-125	3	20	
Lead	0.100	0.0050	0.00007	mg/L	0.10000	0.0001	100	75-125	2	20	
Molybdenum	0.112	0.0100	0.0006	mg/L	0.10000	0.0020	110	75-125	2	20	
Nickel	0.105	0.0100	0.0003	mg/L	0.10000	0.0009	104	75-125	2	20	
Selenium	0.106	0.0100	0.0014	mg/L	0.10000	ND	106	75-125	2	20	
Silver	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	0.4	20	
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	0.0001	101	75-125	3	20	
Vanadium	0.111	0.0100	0.0014	mg/L	0.10000	ND	111	75-125	0.9	20	
Zinc	0.104	0.0100	0.0013	mg/L	0.10000	0.0029	101	75-125	3	20	
Lithium	0.107	0.0500	0.0011	mg/L	0.10000	ND	107	75-125	2	20	
Post Spike (7050803-PS1)		Sou	urce: AAE08	26-01		Prepar	ed: 05/24/	17 Analyz	ed: 05/26	/17	
Antimony	108			ug/L	100.00	0.289	108	80-120			
Arsenic	105			ug/L	100.00	0.554	105	80-120			
Barium	123			ug/L	100.00	21.7	101	80-120			
Beryllium	107			ug/L	100.00	0.0052	107	80-120			
Boron	1050			ug/L	1000.0	13.3	104	80-120			
Cadmium	106			ug/L	100.00	-0.105	106	80-120			
Calcium	62800			ug/L	1000.0	64000	NR	80-120			QM-02
Chromium	106			ug/L	100.00	1.13	105	80-120			
Cobalt	101			ug/L	100.00	0.155	101	80-120			
Copper	100			ug/L	100.00	0.276	100	80-120			
Lead	97.8			ug/L	100.00	0.140	98	80-120			
Molybdenum	111			ug/L	100.00	1.99	109	80-120			
Nickel	101			ug/L	100.00	0.915	100	80-120			
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Environmental Monitoring & Laboratory Analysis 110 Technology Parkway, Peachtree Corners, GA 30092 (770) 734-4200 FAX (770) 734-4201

Georgia Power 2480 Maner Road Atlanta GA, 30339

Mercury

Attention: Mr. Joju Abraham

Report No.: AAE0812

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050803 - EPA 3005A											
Post Spike (7050803-PS1)		Sou	ırce: AAE08	26-01		Prepare	ed: 05/24/	17 Analyz	ed: 05/26/	/17	
Selenium	103			ug/L	100.00	0.641	103	80-120			
Silver	103			ug/L	100.00	0.0043	103	80-120			
Thallium	100			ug/L	100.00	0.141	100	80-120			
Vanadium	108			ug/L	100.00	0.793	108	80-120			
Zinc	102			ug/L	100.00	2.92	99	80-120			
Lithium	105			ug/L	100.00	0.587	104	80-120			
Batch 7050855 - EPA 7470A											
Blank (7050855-BLK1)						Prepare	ed & Analy	/zed: 05/30)/17		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7050855-BS1)						Prepare	ed & Analy	/zed: 05/30)/17		
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3		94	80-120			
Matrix Spike (7050855-MS1)		Sou	ırce: AAE08	11-07		Prepare	ed & Analy	/zed: 05/30)/17		
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7050855-MSD1)		Sou	ırce: AAE08	11-07		Prepare	ed & Analy	/zed: 05/30)/17		
Mercury	0.00233	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	0.8	20	
Post Spike (7050855-PS1)		Sou	ırce: AAE08	11-07		Prepare	ed & Analy	/zed: 05/30)/17		

ug/L

1.6667

-0.00219

80-120

1.67

June 02, 2017



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

June 02, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit MDL - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

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

Please include level IV data validation for the samples 5 - NaOH/ZnAc, <6°C 7 - ≤6°C not frozen 6 - Na₂S₂O₃, ≤6°C 2nd radium volume collected for Lab QA/QC REMARKS/ADDITIONAL INFORMATION 2 - H₂SO4, ≤6°C 4 - NaOH, ≤6°C P - PRODUCT PRESERVATION 1. HQ, ≤6℃ SL - SLUDGE included on this chain of custody - LIQUID SD SOUD 3- HNO3 S- SOIL A - AIR *MATRIX CODES: GW - GROUNDWATER SW - SURFACE WATER DW - DRINKING WATER WW - WASTEWATER ST - STORM WATER A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE S - STERILE O - OTHER V - VOA VIAL P. PLASTIC W - WATER **48**# 3/10 8 Z:3:2:0:W.C 200 DATE/TIME: 5/23/17 DATE/TIME: ANALYSIS REQUESTED Radium 226 & 228 (SW-846 9315/9320) ٥. N 2 N N N N (EPA 300.0 & SM 2540C) ۵. CI, F, SQ, & TDS RELINQUISHED BY: (DTAT/0508 A93) ٥ Metals Part 257 App. III & IV CONTAINER TYPE: PRESERVATION: **Jo**# ဖ $\mathbf{Z} \mathbf{H} \mathbf{C} \mathbf{o}$ Z b **4** laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGWA-6 HGWC-8 HGWA-5 HGWC-7 HGWC9 HGWA-4 PCP-1 Maria Padilla <u> 1</u> 5/23/2017 - 1400 DATE/TIME: DATE/TIME: Plant Hammond - AP 1&2 8 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER KR × 0 < 0× Myles Rogers 0 2 0 MATRIX CODE* REQUESTED COMPLETION DATE: ₹ ≥ ₹ ₹ ₹ ₹ ₹ ₹ 141 Raiph McGill Blvd SE B10185 Lauren Petty AMPLED BY AND TITLE PROJECT NAME/STATE Collection 12:40 1. 13:55 ¥ 10.55 12:25 8 9.52 Aarkevious Thomas Manta, GA 30308 **ECEIVED BY** CLIENT NAME: **Seorgia Power** 404-506-7239 REPORT TO: PROJECT #: Collection DATE 06/23/17 06/23/17 06/23/17 06/23/17 06/23/17 05/23/17 06/23/17 06/23/17

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Table 1

SAMPLE SHIPPED VIA UPS: FEDEX

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Page 21 of 22

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

LOG-IN CHECKLIST

Printed: 5/25/2017 9:47:13AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AAE0812

Date Received: 05/24/17 13:05 **Logged In By:** Mohammad M. Rahman

OBSERVATIONS

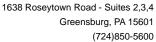
#Samples: 8 **#Containers:** 34

Minimum Temp(C): 1.3 Maximum Temp(C): 1.3 Custody Seal(s) Used: Yes

CHECKLIST ITEMS

YES
YES

Comments:





June 16, 2017

Maria Padilla GA Power 2480 Maner Rd Atlanta. GA 30339

RE: Project: AAE0812 Plant Hammond

Pace Project No.: 30219829

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on May 25, 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

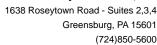
Sugnely allins

jacquelyn.collins@pacelabs.com

(724)850-5612 Project Manager

Enclosures







CERTIFICATIONS

Project: AAE0812 Plant Hammond

Pace Project No.: 30219829

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

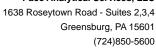
South Dakota Certification

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





SAMPLE SUMMARY

Project: AAE0812 Plant Hammond

Pace Project No.: 30219829

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30219829001	HGWA-4	Water	05/23/17 09:40	05/25/17 10:00
30219829002	HGWA-5	Water	05/23/17 09:52	05/25/17 10:00
30219829003	HGWA-6	Water	05/23/17 10:55	05/25/17 10:00
30219829004	HGWC-7	Water	05/23/17 11:00	05/25/17 10:00
30219829005	HGWC-8	Water	05/23/17 12:25	05/25/17 10:00
30219829006	HGWC-9	Water	05/23/17 13:55	05/25/17 10:00
30219829007	Dup-1	Water	05/23/17 00:00	05/25/17 10:00
30219829008	FB-1	Water	05/23/17 12:40	05/25/17 10:00

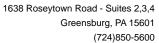


SAMPLE ANALYTE COUNT

Project: AAE0812 Plant Hammond

Pace Project No.: 30219829

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30219829001	HGWA-4	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219829002	HGWA-5	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219829003	HGWA-6	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219829004	HGWC-7	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219829005	HGWC-8	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219829006	HGWC-9	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219829007	Dup-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219829008	FB-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0812 Plant Hammond

Pace Project No.: 30219829

Sample: HGWA-4	Lab ID: 30219829	001 Collected: 05/23/17 09:40	Received:	05/25/17 10:00 I	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.0636 ± 0.0986 (0.213) C:86% T:NA	pCi/L	06/05/17 08:31	13982-63-3	
Radium-228	EPA 9320	0.486 ± 0.377 (0.750) C:82% T:86%	pCi/L	06/12/17 16:00	15262-20-1	
Total Radium		0.550 ± 0.476 (0.963)	pCi/L	06/14/17 09:40	7440-14-4	
Sample: HGWA-5	Lab ID: 30219829	002 Collected: 05/23/17 09:52	Received:	05/25/17 10:00 I	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.156 ± 0.118 (0.186) C:90% T:NA	pCi/L	06/05/17 08:30	13982-63-3	
Radium-228	EPA 9320	0.321 ± 0.358 (0.752) C:79% T:89%	pCi/L	06/12/17 16:00	15262-20-1	
Total Radium		0.477 ± 0.476 (0.938)	pCi/L	06/14/17 09:40	7440-14-4	
Sample: HGWA-6 PWS:	Lab ID: 30219829 Site ID:	003 Collected: 05/23/17 10:55 Sample Type:	Received:	05/25/17 10:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.136 ± 0.111 (0.184) C:90% T:NA	pCi/L	06/05/17 08:30	13982-63-3	
Radium-228	EPA 9320	0.172 ± 0.352 (0.775)	pCi/L	06/12/17 16:00	15262-20-1	
Total Radium		C:77% T:88% 0.308 ± 0.463 (0.959)	pCi/L	06/14/17 09:40	7440-14-4	
Sample: HGWC-7 PWS:	Lab ID: 30219829 Site ID:	004 Collected: 05/23/17 11:00 Sample Type:	Received:	05/25/17 10:00 I	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.129 ± 0.112 (0.195)	pCi/L	06/05/17 08:30	13982-63-3	-
Radium-228		C:88% T:NA 0.492 ± 0.368 (0.725)	pCi/L	06/12/17 16:00	15262-20-1	
Total Radium	Total Radium Calculation	C:79% T:88% 0.621 ± 0.480 (0.920)	pCi/L	06/14/17 09:40	7440-14-4	
Sample: HGWC-8 PWS:	Lab ID: 30219829 Site ID:	005 Collected: 05/23/17 12:25 Sample Type:	Received:	05/25/17 10:00 I	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.167 ± 0.134 (0.238) C:88% T:NA	pCi/L	06/05/17 08:30	13982-63-3	
Radium-228		0.538 ± 0.395 (0.774) C:79% T:82%	pCi/L	06/12/17 16:00	15262-20-1	

Qual



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0812 Plant Hammond

Pace Project No.: 30219829

 Sample: HGWC-8
 Lab ID: 30219829005
 Collected: 05/23/17 12:25
 Received: 05/25/17 10:00
 Matrix: Water

 PWS:
 Site ID:
 Sample Type:

 Parameters
 Method
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 CAS No.

 Total Radium
 Total Radium
 0.705 ± 0.529 (1.01)
 pCi/L
 06/14/17 09:40 7440-14-4

Calculation

Sample: HGWC-9 Lab ID: 30219829006 Collected: 05/23/17 13:55 Received: 05/25/17 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.200 \pm 0.130 \quad (0.183)$ Radium-226 pCi/L 06/05/17 08:30 13982-63-3 C:87% T:NA Radium-228 EPA 9320 0.724 ± 0.433 pCi/L 06/12/17 16:00 15262-20-1 C:78% T:82% Total Radium Total Radium 0.924 ± 0.563 (0.993) pCi/L 06/14/17 09:40 7440-14-4 Calculation

 Sample:
 Dup-1
 Lab ID:
 30219829007
 Collected:
 05/23/17 00:00
 Received:
 05/25/17 10:00
 Matrix:
 Water

 PWS:
 Site ID:
 Sample Type:
 Units
 Analyzed
 CAS No.
 Qual

0.164 ± 0.131 (0.226) EPA 9315 Radium-226 06/05/17 08:30 13982-63-3 pCi/L C:82% T:NA EPA 9320 0.523 ± 0.360 Radium-228 (0.693)pCi/L 06/12/17 16:01 15262-20-1 C:82% T:85% Total Radium Total Radium $0.687 \pm 0.491 \quad (0.919)$ pCi/L 06/14/17 09:40 7440-14-4 Calculation

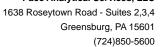
 Sample: FB-1
 Lab ID: 30219829008
 Collected: 05/23/17 12:40
 Received: 05/25/17 10:00
 Matrix: Water

 PWS:
 Site ID:
 Sample Type:

 Parameters
 Method
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 CAS No.
 Qual

 Radium-226
 FPA 9315
 -0.0850 + 0.0746 (0.274)
 p.Ci/l
 06/05/17 08:30
 13982-63-3

EPA 9315 -0.0850 ± 0.0746 (0.274) Radium-226 pCi/L 06/05/17 08:30 13982-63-3 C:90% T:NA EPA 9320 $0.839 \pm 0.462 \quad (0.829)$ Radium-228 pCi/L 06/12/17 16:01 15262-20-1 C:80% T:70% Total Radium Total Radium 0.839 ± 0.537 (1.10) pCi/L 06/14/17 09:40 7440-14-4 Calculation





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0812 Plant Hammond

Pace Project No.: 30219829

QC Batch: 259989 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30219829001, 30219829002, 30219829003, 30219829004, 30219829005, 30219829006, 30219829007,

30219829008

METHOD BLANK: 1280842 Matrix: Water

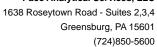
Associated Lab Samples: 30219829001, 30219829002, 30219829003, 30219829004, 30219829005, 30219829006, 30219829007,

30219829008

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.138 ± 0.115 (0.200) C:93% T:NA pCi/L 06/05/17 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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0812 Plant Hammond

Pace Project No.: 30219829

QC Batch: 260239 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30219829001, 30219829002, 30219829003, 30219829004, 30219829005, 30219829006, 30219829007,

30219829008

METHOD BLANK: 1281815 Matrix: Water

Associated Lab Samples: 30219829001, 30219829002, 30219829003, 30219829004, 30219829005, 30219829006, 30219829007,

30219829008

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.305 ± 0.349 (0.735) C:84% T:85% pCi/L 06/12/17 15:58

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.

Greensburg, PA 15601 (724)850-5600





QUALIFIERS

Project: AAE0812 Plant Hammond

Pace Project No.: 30219829

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

Date: 06/16/2017 02:18 PM

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.

1404:30219829

Chain of Custody

Report To:

Owner Received Date: Workorder Name: Plant Hammond |Subcontract To: Workorder: AAE0812

Pace Analytical war procession

Results Requested By: 6/16/2017

Requested Analysis

Betsy Pace A 110 T∈ Peachi	Betsy McDaniel Pace Analytical Atlanta 110 Technology Parkway Peachtree Corners, GA 30092		Pace - Pittsburgh 1638 Roseytown Road Stes. 2,3,4 Greensburg, PA 15601				IstoT ,822 ,6		
Phone	Phone (770)-734-4200	Sample	Phone (724) 850-			Preserved Containers	6863	440	112
Item S	Item Sample ID 1 HGWA-4	Туре	Collect Date/Time Lab 5/23/2017 9:40	Lab ID AAE0812-01	Matrix GW	NH ~	е¥ ×		LAB USE ONLY
2	HGWA-5	ŋ	5/23/2017 9:52	AAE0812-02	GW	2	×		
3	HGWA-6	ŋ	5/23/2017 10:55	AAE0812-03	GW.	2	×		
4	HGWC-7	ŋ	5/23/2017 11:00	AAE0812-04	P.M.S	2	×		
5	HGWC-8	Ð	5/23/2017 12:25	AAE0812-05	ВW	2	×		
9	HGWC-9	9	5/23/2017 13:55	AAE0812-06	GW	4	×		
7	Dup-1	9	5/23/2017 0:00	AAE0812-07	GW	2	×		
∞	FB-1	9	5/23/2017 12:40	AAE0812-08	W	2	×		
<u>б</u>									
10									
Transfers	Rele			Time, Received By	By		Date/Time	Comments	
, ,	ろ、大年を入る	15/A>		5/24/17 Xaren sin	T. E.		SIZSIT 1000	EQuIS deliverable required (Profile 7564)	rofile 7564)
7						, - ,			
3									

ord Sample Intact Oor N	lay not be provided on this COC	
Received on Ice Y or W	ame of the sampling site, sampler's name and signature may not be provided on this COC	available in the owner laboratory.
C Custody Seal Y or M	intiality, location/name of the samplin	mplete as is since this information is a
Cooler Temperature on Receipt	***In order to maintain client confidentiality, location/nan	This chain of custody is considered complete as is since this information is available in the owner laboratory.

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

2g7 1.4

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

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PAGE:

Please include level IV data validation for the samples 5 - NaOHZnAc, s6°C 6 - Na₂S₂O_{3, s}6°C 7 - ≤6°C not frozen 1 - HCl,≤6°C 2 - H₂SQ,,≤6°C 3 - HNO₃ 2nd redium volume collected for Lab QA/QC 4 - NaOH, ≤6°C REHARKS/ADDITIONAL INFORMATION P - PRODUCT SL - SLUDGE A - AIR L - LIQUID included on this chain of custody anos -as スロるの S-S MATRIX CODES: FOR LAB USE ON DAY - DEINGING WATER GW - GROUNDWATER SW - SURFACE WATER ST. STORM WATER NW - WASTEWATER A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE S-STERILE O-OTHER V - VOA VIAL P- PLASTIC W- WATER 493 L < 0 - C W 10 18 **%**11% Z)2:5:0:11:0 8 COUNTY OTHER CATEUTINE: DATE/TIME: ANALYSIS REQUESTED 20170523 AP 18.2 COC.XISX (0766/9168 978-MS) N U W Radium \$26 & 228 PELINQUISHED BY:
CTI V. C. C. EPAN
RELINQUISHEB BY: a. (EBY 300.0 & SM 2540C) CI, F, SQ, & TDS (07AT10\$08 A93) O W Wetals Part 257 App. III & IV CONTAINER TYPE 8 ø 4 COZFK-ZEK laburch@southernco.com SAMPLE IDENTIFICATION Heath McConkle HGWC-9 HGWA-5 HGWC-8 HGMA-4 HGWA-6 HGWC-7 5. F. Marie Padille <u>18.</u> 图逻辑 S/23/2017 - 1400 DATE/TIME: DATECTIME Plant Hammond - AP 182 LIENT ADDRESS/PHONE NUMBER/FAX NUMBER g Ö × o | o < o × SAMPLED BY AND TITLE Myles Rogers ပ်ဝနာစ Lauren Petty
REQUESTED COMPLETION DATE: MATRIX OODE• Š. s 3 ₹ 3 3 3 s 241 Ralph McGill Blwd SE B10185 PROJECT NAME/STATE: Collection 8 <u>‡</u> 1225 333 12:40 加田 8 ğ Sarkevicus Thomas ECEIVED BY: Manta, GA 30308 CLIENT NAME Georgia Power 404-506-7239 REPORT TO: ROJECT #: C5723/17 Collection 0523/17 0523/17 05/23/17 0523/17 **05/23/17** 0523/17 0623/17

age 11 of 14

VEY

Sample Condition Upon Receipt Pittsburgh 30219829 Pace Analytical Client Name: Pau O-Corgia Project #_____ Courter: Z Fed Ex UPS USPS Client Commercial Pace Other Tracking #: US 12 5 104 5 675 Custody Seal on Cooler/Box Present: yes no Seals intact: yes no Type of Ice: Wet Blue None Thermometer Used MA .c Correction Factor: NA .c Final Temp: MA Cooler Temperature Temp should be above freezing to 6°C Date and Initials of person examining contents: N/A Comments: No Chain of Custody Present: Chain of Custody Filled Out: Chain of Custody Relinquished: Sampler Name & Signature on COC: Sample Labels match COC: Matrix: W} -Includes date/time/ID Samples Arrived within Hold Time: Short Hold Time Analysis (<72hr remaining): 8. Rush Turn Around Time Requested: Sufficient Volume: 10. Correct Containers Used: -Pace Containers Used: 11 Containers Intact: Orthophosphate field filtered Organic Samples checked for dechlorination: Filtered volume received for Dissolved tests All containers have been checked for preservation. 15. PH 22 All containers needing preservation are found to be in compliance with EPA recommendation. Initial when Date/time of completed preservation exceptions: VOA, coliform, TOC, O&G, Phenolics Lot # of added preservative 16. Headspace in VOA Vials (>6mm): 17 Trip Blank Present: Trip Blank Custody Seals Present initial when Rad Aqueous Samples Screened > 0.5 mrem/hr Date: 5/25/17 Client Notification/ Resolution: Person Contacted: 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.

Face Analytical"

Quality Control Sample Performance Assessment

Ra-228	JLW	6/7/2017	35948	ΜQ
Test:	Analyst:	Date:	Worklist:	Matrix:

0.305 0.345 0.735 1.73 N/A Pass

MB MDC:

MB Sample ID MB concentration: M/B Counting Uncertainty:

Method Blank Assessment

MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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:
													7	35948													

Laboratory Control Sample Assessment	LCSD (Y or N)?	z
	LCS35948	LCSD35948
Count Date:	6/12/2017	
Spike I.D.:	17-005	
Spike Concentration (pCi/mL):	24.308	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.803	
Target Conc. (pCi/L, g, F):	6.055	
Uncertainty (Calculated):	0.436	
Result (pCi/L, g, F):	6.239	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.733	
Numerical Performance Indicator:	0.42	
Percent Recovery:	103.04%	
Status vs Numerical Indicator:	A/A	
Status vs Recovery:	Pass	

Sample I.D. Sample MSI I.D. Sample MSI I.D. Sample Matrix Spike Result Matrix Spike Result Counting Uncertainty (pCiL, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Duplicate Result Counting Uncertainty (pCiI, g, F): Duplicate Numerical Performance Indicator:	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD;	B0219829006DUP
Duplicate Numerical Performance Indicator:	30219829006
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	the space below.
Sample Matrix Spike Result:	LCS/LCSD in
Sample MSD I.D.	other than
Sample MS I.D.	sample IDs if
Sample I.D.	Enter Duplicate

Sample I.D.: 30219829006

Duplicate Sample I.D. 30219829006DUP

Sample Result Counting Uncertainty (pCl/L, g, F): 0.724

Sample Duplicate Result (pCl/L, g, F): 0.413

Sample Duplicate Result (pCl/L, g, F): 0.333

Are sample and/or duplicate results below MDC? See Below ##

Duplicate Sample Assessment

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

1.346 65.17% N/A

Duplicate RPD:

Duplicate Status vs Numerical Indicator;

Duplicate Status vs RPD:

Duplicate Numerical Performance Indicator;

Comments:

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

Ra-228 NELAC DW2 Printed: 6/16/2017 10:30 AM

Face Analytical

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

www.pacelabs.com	" Test:	Ra-226	
•	Analyst:	LAL	
	Date:	6/1/2017	
	Worklist:	35893	
	Matrix:	ΔM	
Method Blank Assessment			
	MB Sample ID	1280842	
	MB concentration:	0.138	
	M/B Counting Uncertainty:	0.113	
	MB MDC:	0.200	
	MB Numerical Performance Indicator:	2.39	
	MB Status vs Numerical Indicator:	N/A	
	MB Status vs. MDC:	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):	3 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:
													z	LCSD35893													

LCSD (Y or N)? LCS35893

Laboratory Control Sample Assessment

Count Date: Spike I.D.:

MS/ MSD Duplicate Status vs		Fail***	Duplicate Status vs RPD:
MS/ MSD Duplicate Status vs Numerical India		A/Z	Duplicate Status vs Numerical Indicator:
MS/ MSD Duplicate	30219829006DUP	32.31%	Duplicate RPD:
Duplicate Numerical Performance India	30219829006	0.627	Duplicate Numerical Performance Indicator:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L,		See Below ##	Are sample and/or duplicate results below MDC?
Sample Matrix Spike Duplicate R		0.119	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):
Matrix Spike Result Counting Uncertainty (pCi/L,	space below.	0.144	Sample Duplicate Result (pCi/L, g, F):
Sample Matrix Spike R	LCS/LCSD in the	0.127	Sample Result Counting Uncertainty (pCi/L, g, F):
Sample MS	other than	0.200	Sample Result (pCi/L, g, F):
Sample M	sample IDs if	30219829006DUP	Duplicate Sample I.D. 30219829006DUP
Sampl	Enter Duplicate	30219829006	Sample I.D.:
Matrix Spike/Matrix Spike Duplicate Sample Assessment			Duplicate Sample Assessment
DAY of Grans of Activities of the Activities of Activities		223	יל ואספססיים אין ואספסיים אין ואספיים אין ואספסיים אין ואספסיים אין ואספסיים אין ואספיים אין ואיים אין ואספיים אין ואספיים אין ואספיים אין ואספיים אין ואספיים אין ואיים אין ואיים אין ואיים אין ואספיים אין ואיים אין ואיים אין ואיים אין ואיים איים אין ואיים אייים אין אייים א
MS Status vs Reco		K I	Status vs Numerical Indicator:
MSD Status vs Numerical India		92.35%	Percent Recovery:
MS Status vs Numerical India		-2.01	Numerical Performance Indicator:
MSD Percent Reco		0.917	LCS/LCSD Counting Uncertainty (pCi/L, g, F):
MS Percent Reco		14.596	Result (pCi/L, g, F):
MSD Numerical Performance India		0.743	Uncertainty (Calculated):
MS Numerical Performance India		15.805	Target Conc. (pCi/L, g, F):
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L,		0.502	Aliquot Volume (L, g, F):
Sample Matrix Spike Duplicate R		0.40	Volume Used (mL):
Matrix Spike Result Counting Uncertainty (pCi/L,		19.848	Spike Concentration (pCi/mL):
Sample Matrix Spike R		13-033	Spike I.D.:
Sample Result Countilly Olice Lamity (DOIL)		1000	COOL CARC.

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:
				Matrix Sp		Matrix Spike Duplic			/SW	

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.

TAR DW QC Printed: 6/16/2017 10:30 AM



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: AAE0858

June 05, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

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All test results relate only to the samples analyzed.



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-10	AAE0858-01	Water	05/24/17 09:55	05/25/17 12:40
HGWC-11	AAE0858-02	Water	05/24/17 11:25	05/25/17 12:40
HGWC-12	AAE0858-03	Water	05/24/17 12:35	05/25/17 12:40
HGWC-13	AAE0858-04	Water	05/24/17 11:30	05/25/17 12:40
HGWC-14	AAE0858-05	Water	05/24/17 14:50	05/25/17 12:40
HGWC-15	AAE0858-06	Water	05/24/17 13:02	05/25/17 12:40
HGWC-16	AAE0858-07	Water	05/24/17 14:40	05/25/17 12:40
Dup-2	AAE0858-08	Water	05/24/17 00:00	05/25/17 12:40
FERB-1	AAE0858-09	Water	05/24/17 14:50	05/25/17 12:40
FB-2	AAE0858-10	Water	05/24/17 15:10	05/25/17 12:40
FERB-2	AAE0858-11	Water	05/24/17 15:15	05/25/17 12:40



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 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.



Date/Time Sampled: 5/24/2017 9:55:00AM

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

Report No.: AAE0858

Client ID: HGWC-10

Matrix: Water

Project: CCR Event

Lab Number ID: AAE0858-01

Date/Time Received: 5/25/2017 12:40:00PM

June 05, 2017

								Preparation	Analytical		
Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Date	Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	696	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	81	2.5	0.13	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:13	7050979	RLC
Fluoride	0.13	0.30	0.004	mg/L	EPA 300.0	J	1	05/31/17 15:00	06/01/17 01:58	7050979	RLC
Sulfate	190	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:13	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Barium	0.0996	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Boron	0.814	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Calcium	171	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 22:43	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Molybdenum	0.0014	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 22:37	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:29	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0858

Client ID: HGWC-11

Date/Time Sampled: 5/24/2017 11:25:00AM

Matrix: Water

June 05, 2017

Project: CCR Event

Lab Number ID: AAE0858-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	566	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	69	2.5	0.13	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:34	7050979	RLC
Fluoride	0.35	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 02:19	7050979	RLC
Sulfate	230	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:34	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Barium	0.0437	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Boron	2.29	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Calcium	117	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:05	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Lead	0.00009	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Molybdenum	0.0373	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Selenium	0.0038	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Thallium	0.00008	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:00	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:32	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0858

Client ID: HGWC-12

Date/Time Sampled: 5/24/2017 12:35:00PM

Matrix: Water

June 05, 2017

Project: CCR Event

Lab Number ID: AAE0858-03

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	803	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	120	2.5	0.13	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:54	7050979	RLC
Fluoride	0.34	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 02:39	7050979	RLC
Sulfate	210	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 20:54	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Arsenic	0.0022	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Barium	0.106	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Boron	2.95	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Cadmium	0.00009	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Calcium	158	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:17	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Cobalt	0.0015	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Molybdenum	0.0470	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Thallium	0.00009	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Lithium	0.0105	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:11	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:34	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0858

Client ID: HGWC-13

Date/Time Sampled: 5/24/2017 11:30:00AM

Matrix: Water

June 05, 2017

Project: CCR Event

Lab Number ID: AAE0858-04

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	377	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	50	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 04:23	7050979	RLC
Fluoride	0.54	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 04:23	7050979	RLC
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 21:15	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Arsenic	0.393	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Barium	0.0627	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Boron	1.74	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Calcium	77.1	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:28	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Cobalt	0.0022	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Molybdenum	0.0400	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Thallium	0.0003	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Lithium	0.0317	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:23	7050846	CSW
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	05/30/17 14:15	05/30/17 17:37	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0858

Client ID: HGWC-14

Date/Time Sampled: 5/24/2017 2:50:00PM

Matrix: Water

June 05, 2017

Project: CCR Event

Lab Number ID: AAE0858-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3140	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	510	25	1.3	mg/L	EPA 300.0		100	05/31/17 15:00	06/01/17 21:36	7050979	RLC
Fluoride	0.32	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 04:44	7050979	RLC
Sulfate	1400	100	9.2	mg/L	EPA 300.0		100	05/31/17 15:00	06/01/17 21:36	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Arsenic	0.0048	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Barium	0.0228	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Beryllium	0.0005	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Boron	25.8	2.00	0.302	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:40	7050846	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Calcium	617	250	5.22	mg/L	EPA 6020B		500	05/25/17 17:00	05/31/17 14:48	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Cobalt	0.0279	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Lead	0.0016	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Selenium	0.0083	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Thallium	0.0003	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:34	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:39	7050856	MTC



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

Report No.: AAE0858

Client ID: HGWC-15

Date/Time Sampled: 5/24/2017 1:02:00PM

Matrix: Water

June 05, 2017

Project: CCR Event

Lab Number ID: AAE0858-06

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1320	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	240	5.0	0.26	mg/L	EPA 300.0		20	05/31/17 15:00	06/01/17 21:56	7050979	RLC
Fluoride	0.31	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:06	7050979	RLC
Sulfate	500	20	1.8	mg/L	EPA 300.0		20	05/31/17 15:00	06/01/17 21:56	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Barium	0.0283	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Boron	2.26	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Cadmium	0.0041	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Calcium	265	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/30/17 23:51	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Cobalt	0.0446	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Lithium	0.0029	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/30/17 23:45	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:46	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Report No.: AAE0858 Client ID: HGWC-16

Lab Number ID: AAE0858-07

Date/Time Sampled: 5/24/2017 2:40:00PM

Date/Time Received: 5/25/2017 12:40:00PM

June 05, 2017

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	598	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	44	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:27	7050979	RLC
Fluoride	0.46	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:27	7050979	RLC
Sulfate	230	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 22:17	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Barium	0.106	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Boron	1.67	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Calcium	153	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/31/17 00:14	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Lithium	0.0029	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:08	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:48	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0858

Client ID: Dup-2

Date/Time Sampled: 5/24/2017 12:00:00AM

Matrix: Water

June 05, 2017

Project: CCR Event

Lab Number ID: AAE0858-08

Date/Time Received: 5/25/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	366	25	10	mg/L	SM 2540 C		1	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	50	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:48	7050979	RLC
Fluoride	0.51	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 05:48	7050979	RLC
Sulfate	120	10	0.92	mg/L	EPA 300.0		10	05/31/17 15:00	06/01/17 22:38	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Arsenic	0.350	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Barium	0.0647	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Boron	1.87	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Calcium	80.7	25.0	0.522	mg/L	EPA 6020B		50	05/25/17 17:00	05/31/17 00:25	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Lead	0.00007	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Molybdenum	0.0417	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Thallium	0.0004	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Lithium	0.0335	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:20	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:51	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Lab Number ID: AAE0858-09

Date/Time Received: 5/25/2017 12:40:00PM

June 05, 2017

Report No.: AAE0858 Client ID: FERB-1

Date/Time Sampled: 5/24/2017 2:50:00PM

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	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:09	7050979	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:09	7050979	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:09	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Boron	0.0091	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Calcium	0.0639	0.500	0.0104	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:31	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:53	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Report No.: AAE0858

Lab Number ID: AAE0858-10

Client ID: FB-2

Date/Time Received: 5/25/2017 12:40:00PM

June 05, 2017

Date/Time Sampled: 5/24/2017 3:10:00PM

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	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	0.14	0.25	0.01	mg/L	EPA 300.0	J	1	05/31/17 15:00	06/01/17 06:31	7050979	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:31	7050979	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:31	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Boron	0.0063	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Calcium	ND	0.500	0.0104	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:37	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:56	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Lab Number ID: AAE0858-11

Date/Time Received: 5/25/2017 12:40:00PM

June 05, 2017

Report No.: AAE0858
Client ID: FERB-2

Date/Time Sampled: 5/24/2017 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	05/30/17 18:00	05/30/17 18:00	7050912	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:52	7050979	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:52	7050979	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 06:52	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Barium	0.0007	0.0100	0.0003	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Calcium	0.0153	0.500	0.0104	mg/L	EPA 6020B	J	1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/25/17 17:00	05/31/17 00:42	7050846	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 14:15	05/30/17 17:58	7050856	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0858

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050912 - SM 2540 C											
Blank (7050912-BLK1)						Prepar	ed & Analy	yzed: 05/3	0/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7050912-BS1)						Prepar	ed & Analy	yzed: 05/3	0/17		
Total Dissolved Solids	384	25	10	mg/L	400.00		96	84-108			
Duplicate (7050912-DUP1)		Soi	ırce: AAE08	357-04		Prepar	ed & Analy	yzed: 05/3	0/17		
Total Dissolved Solids	185	25	10	mg/L		184			0.5	10	
Duplicate (7050912-DUP2)		Soi	ırce: AAE08	358-10		Prepar	ed & Analy	yzed: 05/3	0/17		
Total Dissolved Solids	ND	25	10	mg/L		ND.				10	

June 05, 2017



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

June 05, 2017

Report No.: AAE0858

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050979 - EPA 300.0											
Blank (7050979-BLK1)						Prepare	ed & Analy	yzed: 05/3 ⁻	1/17		
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 (7050979-BS1)						Prepare	ed & Analy	yzed: 05/3 ⁻	1/17		
Chloride	10.2	0.25	0.01	mg/L	10.020		101	90-110			
Fluoride	10.2	0.30	0.004	mg/L	10.020		101	90-110			
Sulfate	10.3	1.0	0.09	mg/L	10.050		103	90-110			
Matrix Spike (7050979-MS1)		Soi	urce: AAE08	357-03		Prepare	ed: 05/31/	17 Analyz	ed: 06/01	/17	
Chloride	12.9	0.25	0.01	mg/L	10.020	2.91	100	90-110			
Fluoride	10.2	0.30	0.004	mg/L	10.020	0.009	102	90-110			
Sulfate	115	1.0	0.09	mg/L	10.050	118	NR	90-110			QM-02
Matrix Spike (7050979-MS2)		Soi	urce: AAE08	394-01		Prepare	ed: 05/31/	17 Analyz	ed: 06/01	/17	
Chloride	99.6	0.25	0.01	mg/L	10.020	99.9	NR	90-110			QM-02
Fluoride	11.2	0.30	0.004	mg/L	10.020	0.42	107	90-110			
Sulfate	275	1.0	0.09	mg/L	10.050	290	NR	90-110			QM-02
Matrix Spike Dup (7050979-MSD1)		Soi	urce: AAE08	357-03		Prepare	ed: 05/31/	17 Analyz	ed: 06/01	/17	
Chloride	13.0	0.25	0.01	mg/L	10.020	2.91	100	90-110	0.2	15	
Fluoride	10.3	0.30	0.004	mg/L	10.020	0.009	102	90-110	0.2	15	
Sulfate	115	1.0	0.09	mg/L	10.050	118	NR	90-110	0.02	15	QM-02



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050846 - EPA 3005A											
Blank (7050846-BLK1)						Prepare	ed: 05/25/	17 Analyz	ed: 05/30/	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	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							
L CO (7050046 BC4)				J			. 05/05/	47 A	1 05/00	4.7	
LCS (7050846-BS1)	0.105	0.0030	0.0003	ma/l	0.10000	Prepare		17 Analyze	ed: 05/30/	17	
Antimony	0.103	0.0050	0.0003	mg/L			105	80-120			
Arsenic	0.101	0.0030		mg/L	0.10000		101	80-120			
Barium	0.106	0.0030	0.0003	mg/L	0.10000		99	80-120			
Beryllium	1.06		0.00007	mg/L	0.10000		106	80-120			
Boron		0.0400	0.0060	mg/L	1.0000		106	80-120			
Cadmium	0.104	0.0010	0.00006	mg/L	0.10000		104	80-120			
Calcium	0.960	0.500	0.0104	mg/L	1.0000		96	80-120			
Chromium	0.0979	0.0100	0.0003	mg/L	0.10000		98	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.101	0.0250	0.0003	mg/L	0.10000		101	80-120			
Lead	0.0957	0.0050	0.00007	mg/L	0.10000		96	80-120			
Molybdenum	0.105	0.0100	0.0006	mg/L	0.10000		105	80-120			
Nickel	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Selenium	0.100	0.0100	0.0014	mg/L	0.10000		100	80-120			
Silver	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Thallium	0.0984	0.0010	0.00005	mg/L	0.10000		98	80-120			
Vanadium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Zinc	0.102	0.0100	0.0013	mg/L	0.10000		102	80-120			
Lithium	0.103	0.0500	0.0011	mg/L	0.10000		103	80-120			



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

Report No.: AAE0858

June 05, 2017

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050846 - EPA 3005A											
Matrix Spike (7050846-MS1)		Sou	ırce: AAE08	57-01		Prepare	ed: 05/25/	17 Analyz	ed: 05/30/	17	
Antimony	0.106	0.0030	0.0003	mg/L	0.10000	ND	106	75-125			
Arsenic	0.102	0.0050	0.0004	mg/L	0.10000	ND	102	75-125			
Barium	0.122	0.0100	0.0003	mg/L	0.10000	0.0256	97	75-125			
Beryllium	0.0993	0.0030	0.00007	mg/L	0.10000	ND	99	75-125			
Boron	1.03	0.0400	0.0060	mg/L	1.0000	0.0094	102	75-125			
Cadmium	0.107	0.0010	0.00006	mg/L	0.10000	ND	107	75-125			
Calcium	35.9	25.0	0.522	mg/L	1.0000	34.8	115	75-125			
Chromium	0.101	0.0100	0.0003	mg/L	0.10000	0.0004	101	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.101	0.0250	0.0003	mg/L	0.10000	0.0005	100	75-125			
Lead	0.0959	0.0050	0.00007	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.104	0.0100	0.0006	mg/L	0.10000	ND	104	75-125			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000	0.0007	102	75-125			
Selenium	0.102	0.0100	0.0014	mg/L	0.10000	ND	102	75-125			
Silver	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125			
Thallium	0.0989	0.0010	0.00005	mg/L	0.10000	ND	99	75-125			
Vanadium	0.106	0.0100	0.0014	mg/L	0.10000	ND	106	75-125			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000	0.0046	101	75-125			
Lithium	0.0972	0.0500	0.0011	mg/L	0.10000	0.0017	95	75-125			
Matrix Spike Dup (7050846-MSD1)		Soi	ırce: AAE08	57-01		Prepare	ed: 05/25/	17 Analyz	ed: 05/30/	17	
Antimony	0.108	0.0030	0.0003	mg/L	0.10000	ND	108	75-125	1	20	
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000	ND	103	75-125	2	20	
Barium	0.125	0.0100	0.0003	mg/L	0.10000	0.0256	99	75-125	2	20	
Beryllium	0.100	0.0030	0.00007	mg/L	0.10000	ND	100	75-125	0.9	20	
Boron	1.02	0.0400	0.0060	mg/L	1.0000	0.0094	101	75-125	1	20	
Cadmium	0.109	0.0010	0.00006	mg/L	0.10000	ND	109	75-125	1	20	
Calcium	36.1	25.0	0.522	mg/L	1.0000	34.8	138	75-125	0.6	20	QM-02
Chromium	0.0997	0.0100	0.0003	mg/L	0.10000	0.0004	99	75-125	1	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125	1	20	
Copper	0.101	0.0250	0.0003	mg/L	0.10000	0.0005	100	75-125	0.01	20	
Lead	0.0993	0.0050	0.00007	mg/L	0.10000	ND	99	75-125	4	20	
Molybdenum	0.106	0.0100	0.0006	mg/L	0.10000	ND	106	75-125	2	20	
Nickel	0.103	0.0100	0.0003	mg/L	0.10000	0.0007	102	75-125	0.05	20	
Selenium	0.100	0.0100	0.0014	mg/L	0.10000	ND	100	75-125	2	20	
Silver	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125	0.06	20	
Thallium	0.100	0.0010	0.00005	mg/L	0.10000	ND	100	75-125	1	20	
Vanadium	0.105	0.0100	0.0014	mg/L	0.10000	ND	105	75-125	1	20	
Zinc	0.104	0.0100	0.0013	mg/L	0.10000	0.0046	100	75-125	1	20	
Lithium	0.0983	0.0500	0.0011	mg/L	0.10000	0.0040	97	75-125	1	20	
				g/ =	3.10000	3.0017	0.	.0 120	•		



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

June 05, 2017

Report No.: AAE0858

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050846 - EPA 3005A											
Post Spike (7050846-PS1)		So	urce: AAE08	57-01		Prepare	ed: 05/25/	17 Analyz	ed: 05/30	/17	
Antimony	106			ug/L	100.00	0.0902	106	80-120			
Arsenic	104			ug/L	100.00	-0.639	104	80-120			
Barium	125			ug/L	100.00	25.6	99	80-120			
Beryllium	103			ug/L	100.00	0.0021	103	80-120			
Boron	1010			ug/L	1000.0	9.35	100	80-120			
Cadmium	106			ug/L	100.00	0.0211	106	80-120			
Calcium	34200			ug/L	1000.0	34800	NR	80-120			QM-02
Chromium	101			ug/L	100.00	0.355	101	80-120			
Cobalt	101			ug/L	100.00	0.0042	101	80-120			
Copper	101			ug/L	100.00	0.503	100	80-120			
Lead	99.4			ug/L	100.00	0.0321	99	80-120			
Molybdenum	107			ug/L	100.00	0.0486	107	80-120			
Nickel	104			ug/L	100.00	0.670	103	80-120			
Selenium	102			ug/L	100.00	-0.0971	102	80-120			
Silver	103			ug/L	100.00	0.0014	103	80-120			
Thallium	100			ug/L	100.00	0.0034	100	80-120			
Vanadium	108			ug/L	100.00	-0.251	108	80-120			
Zinc	106			ug/L	100.00	4.58	101	80-120			
Lithium	101			ug/L	100.00	1.75	99	80-120			
Batch 7050856 - EPA 7470A											
Blank (7050856-BLK1)						Prepare	ed & Anal	yzed: 05/30	0/17		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7050856-BS1)						Prepare	ed & Anal	yzed: 05/30	0/17		
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

June 05, 2017

Report No.: AAE0858

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050856 - EPA 7470A											
Matrix Spike (7050856-MS1)		Soi	urce: AAE08	58-01		Prepar	ed & Analy	yzed: 05/30	0/17		
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (7050856-MSD1))	Soi	urce: AAE08	58-01		Prepar	ed & Analy	yzed: 05/30)/17		
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	0.6	20	
Post Spike (7050856-PS1)		Soi	ırce: AAE08	58-01		Prepar	ed & Analy	yzed: 05/30	0/17		
Mercury	1.64			ug/L	1.6667	0.00915	98	80-120			



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham June 05, 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 Services, Inc. 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com Pace Analytical *

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PAGE:

5 - NaOH/ZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - ≤6°C not frozen 2 - H2SO4, 26°C REMARKS/ADDITIONAL INFORMATION 4 - NaOH, 56°C A - AIR L - LIQUID P - PRODUCT SL - SLUDGE SD - SOLID 1 - HCI, 56°C PRESERVATION 3 - HNO3 15 *MATRIX CODES ċ DRINKING WATER SURFACE WATER STORM WATER GW - GROUNDWATER WW - WASTEWATER A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE Entered into LIMS V · VOA VIAL S · STERILE O · OTHER P. PLASTIC W - WATER racking #: LAB #: SW. ST. Ö BAL ۵ Z D Z B W K DATE/TIME: ANALYSIS REQUESTED 8 (SW-846 9315/9320) Ω 2 N N N N (PRM) Radium 226 & 228 (EPA 300.0 & SM 2540C) ۵. CI, F, SO, & TDS RELINGUISHED BY: (OT+T/0S08 A93) RELINQUISHED BY ۵. Metals Part 257 App. III & IV CONTAINER TYPE: fo# OOZ A-ZERS 2 laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGWC-12 HGWC-13 HGWC-14 HGWC-15 HGWC-10 HGWC-16 HGWC-11 DUP-2 FERB-2 Maria Padilla FERB-1 FB-2 SEPTIME / J PDATE/TIME: 5/24/2017 - 1530 DATE/TIME: Plant Hammond - AP 1&2 SCR CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER # Od ö SAMPLED BY AND TITLE Myles Rogers ARMarkevious Thomas JOST Will Virgo MPT RECEIVED BY: 0 2 4 0 × × OOEL MATRIX CODE* REQUESTED COMPLETION DATE: ≥ 3 ≥ ≥ 3 3 ≥ ≥ 3 3 3 8 8 241 Ralph McGill Blvd SE B10185 Lauren Petty PROJECT NAME/STATE Collection 11.25 15:10 15:15 1235 1130 1450 14:40 14:50 13.02 9:55 EGENVED BY/LAB: Manta, GA 30308 CLIENT NAME Georgia Power 104-506-7239 REPORT TO PROJECT #: Collection DATE 05/24/17 05/24/17 05/24/17 05/24/17 05/24/17 05/24/17 05/24/17 05/24/17 05/24/17 05/24/17 05/24/17

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

LOG-IN CHECKLIST

Printed: 5/26/2017 4:35:07PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project:CCR EventWork Order:AAE0858Date Received:05/25/17 12:40Logged In By:Charles Hawks

OBSERVATIONS

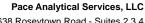
#Samples: 11 #Containers: 44

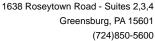
Minimum Temp(C): 2.9 Maximum Temp(C): 2.9 Custody Seal(s) Used: Yes

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:







June 19, 2017

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on May 26, 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

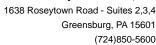
Sugnely Sellins

jacquelyn.collins@pacelabs.com

(724)850-5612 Project Manager

Enclosures







CERTIFICATIONS

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

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 #: £4140008

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

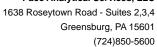
Tennessee Certification #: TN2867

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



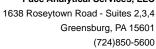


SAMPLE SUMMARY

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30219997001	HGWC-10	Water	05/24/17 09:55	05/26/17 10:00
30219997002	HGWC-11	Water	05/24/17 11:25	05/26/17 10:00
30219997003	HGWC-12	Water	05/24/17 12:35	05/26/17 10:00
30219997004	HGWC-13	Water	05/24/17 11:30	05/26/17 10:00
30219997005	HGWC-14	Water	05/24/17 14:50	05/26/17 10:00
30219997006	HGWC-15	Water	05/24/17 13:02	05/26/17 10:00
30219997007	HGWC-16	Water	05/24/17 14:40	05/26/17 10:00
30219997008	Dup-2	Water	05/24/17 00:00	05/26/17 10:00
30219997009	FERB-1	Water	05/24/17 14:50	05/26/17 10:00
30219997010	FB-2	Water	05/24/17 15:10	05/26/17 10:00
30219997011	FERB-2	Water	05/24/17 15:15	05/26/17 10:00



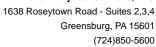


SAMPLE ANALYTE COUNT

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30219997001	HGWC-10	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997002	HGWC-11	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997003	HGWC-12	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997004	HGWC-13	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997005	HGWC-14	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997006	HGWC-15	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997007	HGWC-16	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997008	Dup-2	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997009	FERB-1	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997010	FB-2	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30219997011	FERB-2	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

Pace Project No.: 3021999	7					
Sample: HGWC-10	Lab ID: 30219997		Received:	05/26/17 10:00 Mat	trix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.111 ± 0.105 (0.191) C:89% T:NA	pCi/L	06/05/17 10:09 1	3982-63-3	
Radium-228	EPA 9320	0.614 ± 0.356 (0.643) C:79% T:85%	pCi/L	06/12/17 16:02 1	5262-20-1	
Total Radium	Total Radium Calculation	$0.725 \pm 0.461 (0.834)$	pCi/L	06/14/17 14:31 7	'440-14-4	
Sample: HGWC-11	Lab ID: 30219997	7002 Collected: 05/24/17 11:25	Received:	05/26/17 10:00 Mat	trix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.128 ± 0.119 (0.224) C:93% T:NA	pCi/L	06/05/17 10:09 1	3982-63-3	
Radium-228	EPA 9320	0.559 ± 0.336 (0.613) C:81% T:85%	pCi/L	06/12/17 16:02 1	5262-20-1	
Total Radium	Total Radium Calculation	0.687 ± 0.455 (0.837)	pCi/L	06/14/17 14:31 7	'440-14-4	
Sample: HGWC-12 PWS:	Lab ID: 30219997 Site ID:	7003 Collected: 05/24/17 12:35 Sample Type:	Received:	05/26/17 10:00 Mat	trix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.258 ± 0.139 (0.169)	pCi/L	06/05/17 10:09 1	3982-63-3	
Radium-228	EPA 9320	C:95% T:NA 0.754 ± 0.387 (0.672)	pCi/L	06/12/17 16:02 1	5262-20-1	
Total Radium	Total Radium Calculation	C:79% T:86% 1.01 ± 0.526 (0.841)	pCi/L	06/14/17 14:31 7	'440-14-4	
Sample: HGWC-13 PWS:	Lab ID: 30219997 Site ID:	7004 Collected: 05/24/17 11:30 Sample Type:	Received:	05/26/17 10:00 Mat	trix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.171 ± 0.128 (0.214)	pCi/L	06/05/17 10:09 1	3982-63-3	
Radium-228	EPA 9320	C:87% T:NA 0.484 ± 0.525 (1.11)	pCi/L	06/12/17 16:05 1	5262-20-1	
Total Radium	Total Radium Calculation	C:79% T:81% 0.655 ± 0.653 (1.32)	pCi/L	06/14/17 14:31 7	'440-14-4	
Sample: HGWC-14 PWS:	Lab ID: 30219997 Site ID:	7005 Collected: 05/24/17 14:50 Sample Type:	Received:	05/26/17 10:00 Mat	trix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.310 ± 0.168 (0.257)	pCi/L	06/05/17 10:09 1	3982-63-3	
Radium-228	EPA 9320	C:97% T:NA 0.690 ± 0.523 (1.04) C:78% T:75%	pCi/L	06/12/17 16:05 1	5262-20-1	



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997 Sample: HGWC-14 Lab ID: 30219997005 Collected: 05/24/17 14:50 Received: 05/26/17 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Total Radium Total Radium 06/14/17 14:42 1.000 ± 0.691 (1.30) pCi/L 7440-14-4 Calculation Sample: HGWC-15 Lab ID: 30219997006 Collected: 05/24/17 13:02 Received: 05/26/17 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.202 \pm 0.135 \quad (0.209)$ Radium-226 pCi/L 06/05/17 10:09 13982-63-3 C:92% T:NA Radium-228 EPA 9320 -0.381 ± 0.458 (1.10) pCi/L 06/12/17 16:05 15262-20-1 C:77% T:83% Total Radium Total Radium 0.202 ± 0.593 (1.31) pCi/L 06/14/17 14:42 7440-14-4 Calculation Sample: HGWC-16 Lab ID: 30219997007 Collected: 05/24/17 14:40 Received: 05/26/17 10:00 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 $0.243 \pm 0.185 \quad (0.294)$ Radium-226 06/08/17 08:28 13982-63-3 pCi/L C:95% T:NA Radium-228 EPA 9320 0.802 ± 0.354 pCi/L 06/13/17 11:12 15262-20-1 C:78% T:92% Total Radium Total Radium 1.05 ± 0.539 (0.862) pCi/L 06/14/17 14:42 7440-14-4 Calculation Lab ID: 30219997008 Sample: Dup-2 Collected: 05/24/17 00:00 Received: 05/26/17 10:00 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 0.219 ± 0.190 (0.331) Radium-226 pCi/L 06/08/17 08:28 13982-63-3 C:89% T:NA EPA 9320 $0.740 \pm 0.383 \quad (0.668)$ Radium-228 pCi/L 06/13/17 11:13 15262-20-1 C:75% T:86% Total Radium Total Radium $0.959 \pm 0.573 \quad (0.999)$ pCi/L 06/14/17 14:42 7440-14-4 Calculation Sample: FERB-1 Lab ID: 30219997009 Collected: 05/24/17 14:50 Received: 05/26/17 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed Radium-226 EPA 9315 -0.00831 ± 0.156 (0.440) pCi/L 06/08/17 08:28 13982-63-3 C:80% T:NA EPA 9320 0.658 ± 0.428 Radium-228 (0.810)pCi/L 06/13/17 11:13 15262-20-1 C:70% T:82% Total Radium Total Radium 0.658 ± 0.584 (1.25) pCi/L 06/14/17 14:42 7440-14-4 Calculation

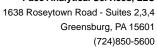


ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

Sample: FB-2 PWS:	Lab ID: 30219 Site ID:	9997010 Collected: 05/24/17 15:10 Sample Type:	Received:	05/26/17 10:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.103 ± 0.157 (0.337) C:77% T:NA	pCi/L	06/08/17 08:28	3 13982-63-3	
Radium-228	EPA 9320	0.668 ± 0.379 (0.687) C:80% T:82%	pCi/L	06/13/17 11:13	3 15262-20-1	
Total Radium	Total Radium Calculation	0.771 ± 0.536 (1.02)	pCi/L	06/14/17 14:42	2 7440-14-4	
Sample: FERB-2 PWS:	Lab ID: 30219 Site ID:	9997011 Collected: 05/24/17 15:15 Sample Type:	Received:	05/26/17 10:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0492 ± 0.111 (0.370) C:83% T:NA	pCi/L	06/08/17 08:28	3 13982-63-3	
Radium-228	EPA 9320	0.299 ± 0.320 (0.663) C:78% T:81%	pCi/L	06/13/17 11:13	3 15262-20-1	
Total Radium	Total Radium Calculation	0.299 ± 0.430 (1.03)	pCi/L	06/14/17 14:42	2 7440-14-4	





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

QC Batch: 259989 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30219997001, 30219997002, 30219997003, 30219997004, 30219997005, 30219997006

METHOD BLANK: 1280842 Matrix: Water

Associated Lab Samples: 30219997001, 30219997002, 30219997003, 30219997004, 30219997005, 30219997006

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.138 ± 0.115 (0.200) C:93% T:NA pCi/L 06/05/17 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.



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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

QC Batch: 260845 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium Associated Lab Samples: 30219997007, 30219997008, 30219997009, 30219997010, 30219997011

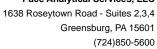
METHOD BLANK: 1284544 Matrix: Water

Associated Lab Samples: 30219997007, 30219997008, 30219997009, 30219997010, 30219997011

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.109 ± 0.154 (0.323) C:89% T:NA pCi/L 06/08/17 08:28

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

QC Batch: 260239 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30219997001, 30219997002, 30219997003, 30219997004, 30219997005, 30219997006

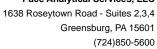
METHOD BLANK: 1281815 Matrix: Water

Associated Lab Samples: 30219997001, 30219997002, 30219997003, 30219997004, 30219997005, 30219997006

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 $0.305 \pm 0.349 \quad (0.735) \text{ C:84\% T:85\%}$ pCi/L $06/12/17 \quad 15:58$

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

 QC Batch:
 260864
 Analysis Method:
 EPA 9320

 QC Batch Method:
 EPA 9320
 Analysis Description:
 9320 Radium 228

 Associated Lab Samples:
 30219997007, 30219997008, 30219997009, 30219997010, 30219997011

METHOD BLANK: 1284598 Matrix: Water

Associated Lab Samples: 30219997007, 30219997008, 30219997009, 30219997010, 30219997011

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.565 ± 0.330 (0.586) C:77% T:82%
 pCi/L
 06/13/17 11:12

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.



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

QUALIFIERS

Project: AAE0858 Plant Hammond

Pace Project No.: 30219997

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

Date: 06/19/2017 02:53 PM

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.

Face Analytical

Results Requested By: 6/19/2017 WO#: 30219997 Requested Analysis 1 226, 228, Total Owner Received Date: Workorder Name: Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Pace - Pittsburgh Subcontract To: Stes. 2,3,4 Peachtree Corners, GA 30092 Workorder: AAE0858 110 Technology Parkway Pace Analytical Atlanta Phone (770)-734-4200 **Betsy McDaniel** Report To:

						Preserved Containers	G	20010007	
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7	HGWC-11	9	5/24/2017 11:25	AAE0858-02	ВW	2	×		700
m	HGWC-12	ŋ	5/24/2017 12:35	AAE0858-03	MΘ	2	×		B
4	HGWC-13	9	5/24/2017 11:30	AAE0858-04	M9	2	×		B
Ń	HGWC-14	9	5/24/2017 14:50	AAE0858-05	ΜS	2	×		8
9	HGWC-15	ŋ	5/24/2017 13:02	AAE0858-06	M9	2	×		S
7	HGWC-16	ß	5/24/2017 14:40	AAE0858-07	M9	2	×		8
∞	Dup-2	9	5/24/2017 0:00	AAE0858-08	JGW	2	×		Š
6	FERB-1	9	5/24/2017 14:50	AAE0858-09	M	2	×		000
10	FB-2	9	5/24/2017 15:10	AAE0858-10	M		×		010
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7					2)	
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 Received on Ice Y of N This chain of custody is considered complete as is since this information is available in the owner laboratory. Custody Seal Y or/N Cooler Temperature on Receipt

Page 1 of 2

Face Analytical

LAB USE ONLY Results Requested By: 6/19/2017 EQuIS deliverable required (Profile 7564) Comments Requested Analysis Date/Time Radium 226, 228, Total Preserved Containers Owner Received Date: ЕОИН Matrix ≥ Date/Time Received By AAE0858-11 Workorder Name: Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Collect Date/Time Lab ID Subcontract To: Pace - Pittsburgh 5/24/2017 15:15 Stes. 2,3,4 Type Sample G Peachtree Corners, GA 30092 Transfers | Released By Workorder: AAE0858 110 Technology Parkway Pace Analytical Atlanta Phone (770)-734-4200 tem Sample ID **Betsy McDaniel** FERB-2 Report To: 18 11 15 16 13 13 14 17

Cooler Temperature on Receipt	ာ့	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
***In order to maintain client confidential	lity, loc	***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC	name and signature may not be provid	led on this COC
This chain of custody is considered comple	ete as is	This chain of custody is considered complete as is since this information is available in the owner laboratory.	wner laboratory.	

14 of 20

30 2 1 0 0 0 7

Face Analytical

CHAIN OF CUSTODY RECORD

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

PAGE: 1 OF

CLENT NAME:					L		e.	NAL.	ANALYSIS REQUESTED	UESTED		-	CONTAINER TYPE	PRESERVATION	
Georgia Power				<u>,</u>	CONTAINER TYPE	13.75	\vdash	0	_			<u>ح</u>		1 - HCI, 26°C	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	SPHONE	NUMBER	FAXN		PRESERVATION	ž	3 7	_	1			m		2 - H ₂ SO ₄ , 26°C	
241 Ralph McGIII Blvd SE B10165	BAY SHIB	710165			jo #								G - CLEAR GLASS	a. HNO	
Atlanta, GA 30308	ø									-			V - VOA VIAL	4 - NaOH, 26°C	
404-506-7239					υ								S. STERILE	5 - NaOH/ZnAc, s6°C	
REPORT TO:				CC: Maria Padilla	0							٥	O. OTHER	6 - Na.S.O. 26°C	
	Lauren Petty	à		Heath McCorkie	z	·····								7 - 26°C not frozen	
RECUESTED COMPLETION DATE:	WPLETIO	N DATE:		#Od	1-							. Z			
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DATE	H H	000E			<u> </u>	- POPE	/43)	(Eb\	WS)			175 A	REMARKS/ADDITH	REMARKS/ADDITIONAL INFORMATION	ox
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MR

30219997_1

Sample Condition Upon Receipt Pittsburgh

Pace Analytical Client Name	•		Da c	e, GA	Project #
Courier: $\frac{1}{1}$ Fed Ex $\frac{1}{1}$ UPS $\frac{1}{1}$ USPS $\frac{1}{1}$ Tracking #: $\frac{1}{1}$ S $\frac{1}{1}$ S	Client E] Corr	nmerci	al Pace Other _	
Custody Seal on Cooler/Box Present:	yes [no	Sea	als intact: 🔲 yes	no
Thermometer Used	туря	of Ic	e: W	et Blue None	
Cooler Temperature Observed Temp		° C	Coi	rection Factor:	°C Final Temp: °C
Temp should be above freezing to 6°C					
Comments:	Yes	s No	N//	্য	Date and initialision person examining contents:
Chain of Custody Present:	X	1	1,	1.	
Chain of Custody Filled Out:	K	†	1	2.	
Chain of Custody Relinquished:	一 攵		+	3,	
Sampler Name & Signature on COC:	X	1	<u> </u>	4.	100
Sample Labels match COC:	- 	+		5.	
-Includes date/time/ID Matrix:	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	-			
Samples Arrived within Hold Time:	TX.	T	T	6.	
Short Hold Time Analysis (<72hr remaining):		V	\vdash	7.	
Rush Turn Around Time Requested:	 -	K		8.	
Sufficient Volume:	1	/	 	9.	
Correct Containers Used:	-K			10.	
-Pace Containers Used:	×			1,0,	
Containers Intact:	-	<u> </u>		11.	
Orthophosphate fleld filtered	-/-		W/o	12.	
Organic Samples checked for dechlorination	<u>. </u>		X	13.	
Filtered volume received for Dissolved tests	-		X	14.	· · · · · · · · · · · · · · · · · · ·
All containers have been checked for preservation.			1	15.	
All containers needing preservation are found to be in compliance with EPA recommendation.	X	-		PHLZ	
exceptions: VOA, coliform, TOC, O&G, Phenolic	cs			initial wher () 9 A	Date/lime of preservation
				Lot # of added preservative	
leadspace in VOA Vials (>6mm):			X	16.	
rip Blank Present:		X		17.	
rip Blank Custody Seals Present			X		
tad Aqueous Samples Screened > 0.5 mrem/h)r	X		Initial when Completed:	Date: 5-26-17
lient Notification/ Resolution:		7.1		1/2	701
Person Confacted:		1	Date/T	ime:	Contacted By:
Comments/ Resolution:					osmosod b <u>į.</u>
			~		
A check in this box indicates that add	ditional i	nform	ation	has been stored in	ereports.

The second state of the se

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.

Face Analytical"

Quality Control Sample Performance Assessment

6/9/2017 Ra-228 JLW 36017 DW Test: Analyst: Date: Worklist: Matrix:

1284598 0.565 0.314 0.586 3.53 N/A Pass

MB MDC:

MB Sample ID MB concentration: M/B Counting Uncertainty:

Method Blank Assessment

MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC;

Analyst Must Manually Enter All Fields Highlighted in Yellow.

MSD Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery: MS Target Conc.(pCi/L, g, F): MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): 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 MSD (mL); 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: Spike Volume Used in MS (mL) Sample Matrix Spike Control Assessment

_									_					_
\	LCSD36017	6/13/2017	17-005	24.301	0.20	908'0	6.034	0.434	5.230	0.734	-1.85	89.68%	N/A	Pass
LCSD (Y or N)?	LCS36017	6/13/2017	17-005	24.301	0.20	0.819	5.931	0.427	6.448	0.643	1.31	108.73%	NA	Pass
Laboratory Control Sample Assessment		Count Date:	Spike I.D.:	Spike Concentration (pCi/mL):	Volume Used (mL);	Aliquot Volume (L, g, F):	Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCi/L, g, F):	LCS/LCSD Counting Uncertainty (pCl/L, g, F):	Numerical Performance Indicator;	Percent Recovery:	Status vs Numerical Indicator:	Status vs Recovery

|--|

6.448 0.643 5.230 0.734 NO 2.449 22.57%

LCSD36017

LCS36017

Sample I.D.: Duplicate Sample I.D. Sample Result (pCi/L, g, F):

Duplicate Sample Assessment

Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F):

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC?

Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:

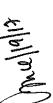
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

N/A Pass

Duplicate Status vs RPD:

Duplicate Status vs Numerical Indicator

Comments:



1 of 1

Quality Control Sample Performance Assessment Face Analytical"

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Ra-228 JLW Test: Analyst:

6/7/2017 35948 DW	1281815 0.305 0.345 0.735 1.73 N/A Pass
Date: Worklist: Matrix:	MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC: ical Performance Indicator: tus vs Numerical Indicator: MB Status vs. MDC:

Method Blank Assessment

	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):	
z	Spike uncertainty (calculated):	
SD35948	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.	

MB Numerical Performance Indicator; MB Status vs Numerical Indicator: MB Status vs. MDC:

	_	_	_								_		_	_
z	LCSD35948													
CSD (Y or N)?	LCS35948	6/12/2017	17-005	24.308	0.20	0.803	6.055	0.436	6.239	0.733	0.42	103.04%	A/N	Pass
Laboratory Control Sample Assessment		Count Date:	Spike I.D.:	Spike Concentration (pCi/mL):	Volume Used (mL):	Aliquot Volume (L, g, F):	Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCi/L, g, F):	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	Numerical Performance Indicator:	Percent Recovery:	Status vs Numerical Indicator:	Status vs Recovery:

maint oblike/maint oblike Dublicate odilipie Assessillett	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:

Enter Duplicate sample IDs if other than

he space below. LCS/LCSD in

Sample I.D.: 30219829006
Duplicate Sample I.D. 30219829006DUP
Sample Result (pCl/I., g, F): 0.724
Sample Result (pCl/I., g, F): 0.413
Sample Duplicate Result (pCl/I., g, F): 0.368
Sample Duplicate Result (pCl/I., g, F): 0.368
Are sample and/or duplicate results below MDC? See Below ##

Duplicate Sample Assessment

30219829006 0219829006DUF

1.346 65.17%

Duplicate RPD:

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD:

Duplicate Numerical Performance Indicator:

N/A Fail**

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

Comments:

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



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow

Ra-226

Test:

Face Analytical"

Sample Matrix Spike Control Assessment 6/1/2017 Analyst: Date:

35893 DW Worklist: Matrix: MB Sample ID

0.113 0.200 2.39 N/A Pass 0.138 MB concentration: MB MDC: MB Numerical Performance Indicator: M/B Counting Uncertainty MB Status vs Numerical Indicator: MB Status vs. MDC Method Blank Assessment

MS Aliquot (L, g, F):

MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F):

MS/MSD Decay Corrected Spike Concentration (pCl/mL):

Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL):

Sample MS I.D.

Sample Collection Date: Sample 1.D. Sample MSD I.D. Spike 1.D.: 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

LCSD35893 SD (Y or N)? LCS35893 0.40 0.502 15.805 0.743 14.596 0.917 -2.01 92.35% N/A Pass 13-033 19.848 6/5/2017 Percent Recovery: Uncertainty (Calculated): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Status vs Numerical Indicator: Count Date: Spike I.D.: Spike Concentration (pCi/mL): Volume Used (mL): Aliquot Volume (L, g, F): rarget Conc. (pCi/L, g, F): Result (pCi/L, g, F): Numerical Performance Indicator: Status vs Recovery Laboratory Control Sample Assessment

Matrix Spike/Matrix Spike Duplicate Sample Assessment ## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC. CS/LCSD in the Enter Duplicate sample IDs if space below. other than 30219829006DUP See Below 排 30219829006 0.627 32.31% N/A Fail* 0.127 0.119 0.200 Sample Result (pC/I/L, g, F):
Sample Result Counting Uncertainty (pC/I/L, g, F):
Sample Duplicate Result (pC/I/L, g, F):
Sample Duplicate Result Counting Uncertainty (pC/I/L, g, F):
Are sample and/or duplicate results below MDC? Sample I.D.: Duplicate Sample I.D. Duplicate RPD: Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: Duplicate Sample Assessment

Sample I.D. Sample MS I.D.

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

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

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Page 19 of 20

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Face Analytical"

	Ra-226	JC2	6/7/2017 Sample Matrix Spike Control Assessment	36007 Sample Collection Date:	DW		1284544	0.109 MS/MSD Decay Corrected Spike Concentration (pCi/ml.)		0.323 Spike Volume Used in MSD (mL):		MS Targ	Pass MSD Aliquot (L, g, F):	MSD Target Conc. (pC/I/L, g, F):	LCSD (Y or N)? N Spike uncertainty (calculated)	LCS36007	6/8/2017 Sample Result Counting Uncertainty (pCi/L, g, F):		Matrix Spike Re		Matrix Spike Duplicate Res	15,835 MS Numerical Performance Indicator:	MSD Numerical	13.485 MS Percent Recovery:		-3.47 MS Status vs Numerical Indicator	85.16% MSD Status vs Numerical Indicator:	
aco, man mod	www.pacalibs.com Test:	Analyst:	Date:	Worklist	Matrix	Method Blank Assessment	MB Sample ID	MB concentration:	M/B Counting Uncertainty:	MB MDC:	MB Numerical Performance Indicator:	MB Status vs Numerical Indicator:	MB Status vs. MDC:	The second secon	Laboratory Control Sample Assessment		Count Date:	Spike 1.D.:	Spike Concentration (pCi/mL):	Volume Used (mL);	Aliquot Volume (L, g, F):	Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCi/L, g, F):	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	Numerical Performance Indicator:	Percent Recovery:	

MSD Status vs Recovery

Status vs Numerical Indicator: Status vs Recovery

Duplicate Sample Assessment

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.	Matrix Spike/Matrix Spike Duplicate Sample Assessment Sample N.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCl/L, g, F): Sample Matrix Spike Duplicate Result: Duplicate Result Counting Uncertainty (pCl/L, g, F): Duplicate Numerical Performance Indicator:
30219997007DUP	MS/ MSD Duplicate RPD:
	MS/ MSD Duplicate Status vs Numerical Indicator:

Sample I.D.: 30219997007 En Duplicate Sample I.D.: 30219997007DUP symple Result (DG/L, g, F): 0.243 g Uncertainty (DG/L, g, F): 0.181 plicate Result (DG/L, g, F): 0.039 g Uncertainty (DG/L, g, F): 0.146 g Uncertainty (DG/L, g, F): 0.146

Sample Result (pCi/L, 9, F):
Sample Result Counting Uncertainty (pCi/L, 9, F):
Sample Duplicate Result (pCi/L, 9, F):
Sample Duplicate Result Counting Uncertainty (pCi/L, 9, F):
Are sample and/or duplicate results below MDC?

•	3/8
or duplicate results are below the MDC.	
## 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.

2.376 276.22% N/A Fail***

Duplicate RPD:

Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD:

Duplicate Numerical Performance Indicator:

Printed: 6/19/2017 1:32 PM TAR DW QC

1 of 1



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: AAE0894

June 05, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

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All test results relate only to the samples analyzed.



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

June 05, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-17	AAE0894-01	Ground Water	05/25/17 09:35	05/26/17 09:55
HGWC-18	AAE0894-02	Ground Water	05/25/17 09:40	05/26/17 09:55



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

June 05, 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.



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

Report No.: AAE0894

Client ID: HGWC-17

Date/Time Sampled: 5/25/2017 9:35:00AM

Matrix: Ground Water

June 05, 2017

Project: CCR Event

Lab Number ID: AAE0894-01

Date/Time Received: 5/26/2017 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1080	25	10	mg/L	SM 2540 C		1	05/31/17 17:50	05/31/17 17:50	7050957	JPT
Inorganic Anions											
Chloride	99	12	0.65	mg/L	EPA 300.0		50	05/31/17 15:00	06/02/17 00:21	7050979	RLC
Fluoride	0.42	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 07:13	7050979	RLC
Sulfate	430	50	4.6	mg/L	EPA 300.0		50	05/31/17 15:00	06/02/17 00:21	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Barium	0.0255	0.0100	0.0003	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Boron	8.58	2.00	0.302	mg/L	EPA 6020B		50	05/30/17 11:10	06/02/17 15:25	7050903	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Calcium	292	25.0	0.522	mg/L	EPA 6020B		50	05/30/17 11:10	06/02/17 15:25	7050903	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Cobalt	0.0154	0.0100	0.0005	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Thallium	0.0001	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Lithium	0.0011	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/30/17 11:10	06/02/17 15:20	7050903	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/30/17 11:45	05/30/17 20:02	7050858	MTC



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

Project: CCR Event

Report No.: AAE0894 Client ID: HGWC-18

Lab Number ID: AAE0894-02

Date/Time Sampled: 5/25/2017 9:40:00AM

Date/Time Received: 5/26/2017 9:55:00AM

June 05, 2017

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1970	25	10	mg/L	SM 2540 C		1	05/31/17 17:50	05/31/17 17:50	7050957	JPT
Inorganic Anions											
Chloride	290	25	1.3	mg/L	EPA 300.0		100	05/31/17 15:00	06/02/17 00:41	7050979	RLC
Fluoride	0.54	0.30	0.004	mg/L	EPA 300.0		1	05/31/17 15:00	06/01/17 09:20	7050979	RLC
Sulfate	920	100	9.2	mg/L	EPA 300.0		100	05/31/17 15:00	06/02/17 00:41	7050979	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Arsenic	0.0060	0.0050	0.0004	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Barium	0.0336	0.0100	0.0003	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Beryllium	0.0036	0.0030	0.00007	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Boron	13.2	2.00	0.302	mg/L	EPA 6020B		50	05/30/17 11:10	06/02/17 15:37	7050903	CSW
Cadmium	0.0027	0.0010	0.00006	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Calcium	492	25.0	0.522	mg/L	EPA 6020B		50	05/30/17 11:10	06/02/17 15:37	7050903	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Cobalt	0.209	0.0100	0.0005	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Lead	0.0012	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Selenium	0.0190	0.0100	0.0014	mg/L	EPA 6020B		1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Thallium	0.0002	0.0010	0.00005	mg/L	EPA 6020B	J	1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Lithium	0.0154	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/30/17 11:10	06/02/17 15:31	7050903	CSW
Mercury	0.00008	0.00050	0.000041	mg/L	EPA 7470A	J	1	05/30/17 11:45	05/30/17 20:04	7050858	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAE0894

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050957 - SM 2540 C											
Blank (7050957-BLK1)						Prepar	ed & Anal	yzed: 05/3	1/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7050957-BS1)						Prepar	ed & Anal	yzed: 05/3	1/17		
Total Dissolved Solids	381	25	10	mg/L	400.00		95	84-108			
Duplicate (7050957-DUP1)		Soi	urce: AAE09	911-07		Prepar	ed & Anal	yzed: 05/3	1/17		
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7050957-DUP2)		Soi	ırce: AAE09	912-01		Prepar	ed & Anal	yzed: 05/3	1/17		
Total Dissolved Solids	190	25	10	mg/L		223			16	10	QR-03

June 05, 2017



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

Report No.: AAE0894

June 05, 2017

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050979 - EPA 300.0											
Blank (7050979-BLK1)						Prepare	ed & Analy	/zed: 05/3	1/17		
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 (7050979-BS1)						Prepare	ed & Analy	/zed: 05/3	1/17		
Chloride	10.2	0.25	0.01	mg/L	10.020		101	90-110			
Fluoride	10.2	0.30	0.004	mg/L	10.020		101	90-110			
Sulfate	10.3	1.0	0.09	mg/L	10.050		103	90-110			
Matrix Spike (7050979-MS1)		Soi	urce: AAE08	357-03		Prepare	ed: 05/31/	17 Analyz	ed: 06/01	/17	
Chloride	12.9	0.25	0.01	mg/L	10.020	2.91	100	90-110			
Fluoride	10.2	0.30	0.004	mg/L	10.020	0.009	102	90-110			
Sulfate	115	1.0	0.09	mg/L	10.050	118	NR	90-110			QM-02
Matrix Spike (7050979-MS2)		Soi	urce: AAE08	394-01		Prepare	ed: 05/31/	17 Analyz	ed: 06/01	/17	
Chloride	99.6	0.25	0.01	mg/L	10.020	99.9	NR	90-110			QM-02
Fluoride	11.2	0.30	0.004	mg/L	10.020	0.42	107	90-110			
Sulfate	275	1.0	0.09	mg/L	10.050	290	NR	90-110			QM-02
Matrix Spike Dup (7050979-MSD1)		Soi	urce: AAE08	357-03		Prepare	ed: 05/31/	17 Analyz	ed: 06/01	/17	
Chloride	13.0	0.25	0.01	mg/L	10.020	2.91	100	90-110	0.2	15	
Fluoride	10.3	0.30	0.004	mg/L	10.020	0.009	102	90-110	0.2	15	
Sulfate	115	1.0	0.09	mg/L	10.050	118	NR	90-110	0.02	15	QM-02



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

Report No.: AAE0894

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050858 - EPA 7470A											
Blank (7050858-BLK1)						Prepar	ed & Analy	/zed: 05/30)/17		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7050858-BS1)						Prepar	ed & Analy	/zed: 05/30)/17		
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			
Matrix Spike (7050858-MS1)		Sou	ırce: AAE089	94-01		Prepar	ed & Analy	/zed: 05/30)/17		
Mercury	0.00202	0.00050	0.000041	mg/L	2.5000E-3	ND	81	75-125			
Matrix Spike Dup (7050858-MSD1)		Soi	urce: AAE089	94-01		Prepar	ed & Analy	/zed: 05/30)/17		
Mercury	0.00208	0.00050	0.000041	mg/L	2.5000E-3	ND	83	75-125	3	20	
Post Spike (7050858-PS1)		Soi	urce: AAE089	94-01		Prepar	ed & Analy	/zed: 05/30)/17		
Mercury	1.51			ug/L	1.6667	0.0252	89	80-120			
Batch 7050903 - EPA 3005A											
Blank (7050903-BLK1)						Prenar	ed: 05/30/	17 Analyz	ed: 06/02/	/17	
Antimony	ND	0.0030	0.0003	mg/L		1 Topan	<u>ca. 00/00/</u>	17 Talaly2	54. 00/02/		
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							

June 05, 2017



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

June 05, 2017

Report No.: AAE0894

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050903 - EPA 3005A											
LCS (7050903-BS1)						Prepare	ed: 05/30/	17 Analyz	ed: 06/02/	17	
Antimony	0.110	0.0030	0.0003	mg/L	0.10000		110	80-120			
Arsenic	0.104	0.0050	0.0004	mg/L	0.10000		104	80-120			
Barium	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Beryllium	0.103	0.0030	0.00007	mg/L	0.10000		103	80-120			
Boron	1.07	0.0400	0.0060	mg/L	1.0000		107	80-120			
Cadmium	0.104	0.0010	0.00006	mg/L	0.10000		104	80-120			
Calcium	1.08	0.500	0.0104	mg/L	1.0000		108	80-120			
Chromium	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Cobalt	0.106	0.0100	0.0005	mg/L	0.10000		106	80-120			
Copper	0.103	0.0250	0.0003	mg/L	0.10000		103	80-120			
Lead	0.103	0.0050	0.00007	mg/L	0.10000		103	80-120			
Molybdenum	0.105	0.0100	0.0006	mg/L	0.10000		105	80-120			
Nickel	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Selenium	0.105	0.0100	0.0014	mg/L	0.10000		105	80-120			
Silver	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Thallium	0.104	0.0010	0.00005	mg/L	0.10000		104	80-120			
Vanadium	0.106	0.0100	0.0014	mg/L	0.10000		106	80-120			
Zinc	0.106	0.0100	0.0013	mg/L	0.10000		106	80-120			
Lithium	0.106	0.0500	0.0011	mg/L	0.10000		106	80-120			
Matrix Spike (7050903-MS1)		Sou	urce: AAE09	11-01		Prepare	ed: 05/30/	17 Analyz	ed: 06/02/	17	
Antimony	0.108	0.0030	0.0003	mg/L	0.10000	ND	108	75-125			
Arsenic	0.105	0.0050	0.0004	mg/L	0.10000	0.0015	103	75-125			
Barium	0.456	0.0100	0.0003	mg/L	0.10000	0.193	263	75-125			QM-02
Beryllium	0.0993	0.0030	0.00007	mg/L	0.10000	ND	99	75-125			
Boron	1.01	0.0400	0.0060	mg/L	1.0000	0.0100	100	75-125			
Cadmium	0.102	0.0010	0.00006	mg/L	0.10000	ND	102	75-125			
Calcium	34.6	25.0	0.522	mg/L	1.0000	33.8	73	75-125			QM-02
Chromium	0.107	0.0100	0.0003	mg/L	0.10000	ND	107	75-125			
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Copper	0.103	0.0250	0.0003	mg/L	0.10000	ND	103	75-125			
Lead	0.101	0.0050	0.00007	mg/L	0.10000	0.0001	101	75-125			
Molybdenum	0.109	0.0100	0.0006	mg/L	0.10000	0.0020	107	75-125			
Nickel	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125			
Selenium	0.103	0.0100	0.0014	mg/L	0.10000	ND	103	75-125			
Silver	0.101	0.0100	0.0003	mg/L	0.10000	ND	101	75-125			
Thallium	0.103	0.0010	0.00005	mg/L	0.10000	0.0001	103	75-125			
Vanadium	0.110	0.0100	0.0014	mg/L	0.10000	ND	110	75-125			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000	0.0015	104	75-125			
Lithium	0.104	0.0500	0.0011	mg/L	0.10000	ND	104	75-125			



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

Report No.: AAE0894

Metals, Total - Quality Control

June 05, 2017

0.108 0.105 0.461 0.103	Sou 0.0030 0.0050	o.0003	11-01							
0.105 0.461	0.0030		11-01							
0.105 0.461		0.0003			Prepare	ed: 05/30/	17 Analyze	ed: 06/02/	17	
0.461	0.0050		mg/L	0.10000	ND	108	75-125	0.3	20	
		0.0004	mg/L	0.10000	0.0015	103	75-125	0.1	20	
0.103	0.0100	0.0003	mg/L	0.10000	0.193	268	75-125	1	20	QM-02
	0.0030	0.00007	mg/L	0.10000	ND	103	75-125	4	20	
1.02	0.0400	0.0060	mg/L	1.0000	0.0100	101	75-125	1	20	
0.105	0.0010	0.00006	mg/L	0.10000	ND	105	75-125	2	20	
35.3	25.0	0.522	mg/L	1.0000	33.8	145	75-125	2	20	QM-02
0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125	4	20	
0.0996	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	4	20	
0.100	0.0250	0.0003	mg/L	0.10000	ND	100	75-125	3	20	
0.100	0.0050	0.00007	mg/L	0.10000	0.0001	100	75-125	1	20	
0.105	0.0100	0.0006	mg/L	0.10000	0.0020	103	75-125	3	20	
0.100	0.0100	0.0003	-	0.10000	ND	100	75-125	4	20	
0.105	0.0100	0.0014	-	0.10000	ND	105	75-125	1	20	
0.101	0.0100	0.0003	_	0.10000	ND	101	75-125	0.1	20	
0.102	0.0010	0.00005	-		0.0001	102		0.9		
0.106	0.0100	0.0014	-		ND	106	75-125	3	20	
0.102	0.0100	0.0013	_		0.0015	101	75-125	3	20	
0.104	0.0500	0.0011	mg/L	0.10000	ND	104	75-125	0.06	20	
	Sou	ırce: AAE09	11-01		Prepare	ed: 05/30/	17 Analyze	ed: 06/02/	17	
106			ug/L	100.00	0.0698	106	80-120			
105			ug/L	100.00	1.49	103	80-120			
463			ug/L	100.00	193	270	80-120			QM-02
103			ug/L	100.00	0.0042	103	80-120			
1040			ug/L	1000.0	9.96	103	80-120			
100			ug/L	100.00	-0.0083	100	80-120			
35400			ug/L	1000.0	33800	160	80-120			QM-02
105			ug/L	100.00	0.145	105	80-120			
104			ug/L	100.00	0.156	104	80-120			
98.4			ug/L	100.00	-0.110	98	80-120			
99.2			ug/L	100.00	0.0975	99	80-120			
106				100.00	2.05	104	80-120			
101			-	100.00	0.229	101	80-120			
104				100.00	0.434	103	80-120			
102			-	100.00	-0.0023	102	80-120			
102					0.0965	102				
107										
103										
101			-							
	0.0996 0.100 0.100 0.105 0.100 0.105 0.101 0.102 0.106 0.102 0.104 106 105 463 103 1040 100 35400 105 104 98.4 99.2 106 101 104 102 102 107 103	0.0996	0.0996	0.0996 0.0100 0.0005 mg/L 0.100 0.0250 0.0003 mg/L 0.100 0.0050 0.00007 mg/L 0.105 0.0100 0.0006 mg/L 0.105 0.0100 0.0003 mg/L 0.105 0.0100 0.0014 mg/L 0.101 0.0100 0.0003 mg/L 0.102 0.0010 0.00005 mg/L 0.106 0.0100 0.0014 mg/L 0.102 0.0100 0.0013 mg/L 0.104 0.0500 0.0011 mg/L 0.104 0.0500 0.0011 mg/L 105 ug/L ug/L 103 ug/L ug/L 104 ug/L ug/L 105 ug/L ug/L 104 ug/L ug/L 105 ug/L ug/L 104 ug/L ug/L 106 ug/L ug/L 101<	0.0996 0.0100 0.0005 mg/L 0.10000 0.100 0.0250 0.0003 mg/L 0.10000 0.100 0.0050 0.00007 mg/L 0.10000 0.105 0.0100 0.0006 mg/L 0.10000 0.105 0.0100 0.0003 mg/L 0.10000 0.105 0.0100 0.0014 mg/L 0.10000 0.105 0.0100 0.0003 mg/L 0.10000 0.101 0.0100 0.0003 mg/L 0.10000 0.102 0.0010 0.00005 mg/L 0.10000 0.102 0.0100 0.0013 mg/L 0.10000 0.102 0.0100 0.0013 mg/L 0.10000 0.104 0.0500 0.0011 mg/L 100.00 105 ug/L 100.00 ug/L 100.00 104 ug/L 100.00 ug/L 100.00 105 ug/L 100.00 ug/L 100.00	0.0996 0.0100 0.0005 mg/L 0.10000 ND 0.100 0.0250 0.0003 mg/L 0.10000 ND 0.100 0.0050 0.00007 mg/L 0.10000 0.0001 0.105 0.0100 0.0003 mg/L 0.10000 ND 0.105 0.0100 0.0014 mg/L 0.10000 ND 0.101 0.0100 0.0003 mg/L 0.10000 ND 0.101 0.0100 0.0003 mg/L 0.10000 ND 0.102 0.0010 0.0003 mg/L 0.10000 ND 0.102 0.0010 0.00013 mg/L 0.10000 0.0015 0.104 0.0500 0.0011 mg/L 0.10000 ND Source: AAE0911-01 Prepare 105 ug/L 100.00 0.0698 105 ug/L 100.00 0.0698 104 ug/L 100.00 0.0042 104	0.0996	0.0996 0.0100 0.0005 mg/L 0.10000 ND 100 75-125 0.100 0.0250 0.0003 mg/L 0.10000 ND 100 75-125 0.100 0.0050 0.00007 mg/L 0.10000 0.0001 100 75-125 0.105 0.0100 0.0003 mg/L 0.10000 ND 100 75-125 0.105 0.0100 0.0003 mg/L 0.10000 ND 100 75-125 0.105 0.0100 0.0014 mg/L 0.10000 ND 105 75-125 0.105 0.0100 0.0003 mg/L 0.10000 ND 101 75-125 0.104 0.0100 0.00014 mg/L 0.10000 ND 106 75-125 0.102 0.0100 0.0013 mg/L 0.10000 ND 106 75-125 0.104 0.0500 0.0013 mg/L 0.10000 ND 104 75-125	0.0996 0.0100 0.0005 mg/L 0.10000 ND 100 75-125 4 0.100 0.0250 0.0003 mg/L 0.10000 ND 100 75-125 3 0.100 0.0050 0.00007 mg/L 0.10000 0.0001 100 75-125 1 0.105 0.0100 0.0006 mg/L 0.10000 0.0020 103 75-125 3 0.100 0.0100 0.0003 mg/L 0.10000 ND 100 75-125 4 0.105 0.0100 0.0014 mg/L 0.10000 ND 105 75-125 4 0.105 0.0100 0.0003 mg/L 0.10000 ND 101 75-125 0 1 0.102 0.0101 0.00005 mg/L 0.10000 ND 106 75-125 3 3 0.102 0.014 mg/L 0.10000 ND 104 75-125 3 0 0.102 75-125	0.0996



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

June 05, 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 Services, Inc. 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

R

PAGE:

5 - NaOH/ZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - ≤6°C not frozen REMARKS/ADDITIONAL INFORMATION 2 - H₂SO4, ≤6°C 4 - NaOH, ≤6°C P - PRODUCT PRESERVATION 1- HCI, ≤6°C SL - SLUDGE 3 - HNO3 sp. soup dilloll - I S- SOIL A- AIR *MATRIX CODES. 2nd Radium Volume Collected DW - DRINKING WATER SW - SURFACE WATER GW - GROUNDWATER SI - STORM WATER **NW- WASTEWATER** A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE Intered Into LIMS S - STERILE O - OTHER V - VOA VIAL P - PLASTIC W- WATER racking #: LAB# 7 **→ ≪ ⊕** <u>- 0</u> 4.55 DATE/TIME: 7/21/17 DATE/TIME: CLIENT Cooler ID: ANALYSIS REQUESTED (0266/2166 948-W2 က Radium 226 & 228 (EPA 300.0 & SM 2540C) ما RELINQUISHED BY: M SAMPLE SHIPPED VIA: UPS FED-EX Custody Seat: сі, ғ., sф. & трs RELINQUISHED BY: / (0747/0408 A93) മേത Metals Part 257 App. III & IV CONTAINER TYPE: PRESERVATION: # of ပဝ Z F 4 - Z W & Ø ø laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGWC-18 HGWC-17 Maria Padilla 5/25/2017 - 1230 DATE/TIME: 021216 DATE/TIME Plant Hammond - AP 1&2 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER MR $\alpha < \alpha$ 0 2 4 SAMPLED BY AND TITLE Myles Rogers MATRIX CODE* REQUESTED COMPLETION DATE: Ω ≷ ≶ ປັ 241 Ralph McGill Blvd SE B10185 Lauren Petty PROJECT NAME/STATE: Collection Narkevious Thomas 30 9:40 9:35 Atlanta, GA 30308 RECEIVED BY: CLIENT NAME Georgia Power 404-506-7239 REPORT TO: PROJECT #: Collection DATE 05/25/17 05/25/17 Page 12 of 13

20170525 AP 1&2 COC.xlsx

Broken

ntact

1 Min. 1

FS.

OTHER

COURIER # of Coolers



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

LOG-IN CHECKLIST

Printed: 5/26/2017 4:35:54PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AAE0894

Date Received: 05/26/17 09:55 **Logged In By:** Mohammad M. Rahman

OBSERVATIONS

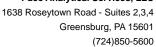
#Samples: 2 **#Containers:** 10

Minimum Temp(C): 1.2 Maximum Temp(C): 1.2 Custody Seal(s) Used: N/A

CHECKLIST ITEMS

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

Comments:





June 21, 2017

Maria Padilla **GA Power** 2480 Maner Rd Atlanta, GA 30339

RE: Project: AAE0894 Plant Hammond

Pace Project No.: 30220163

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on May 30, 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

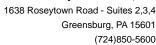
Sugnely Sellins

jacquelyn.collins@pacelabs.com

(724)850-5612 **Project Manager**

Enclosures







CERTIFICATIONS

Project: AAE0894 Plant Hammond

Pace Project No.: 30220163

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

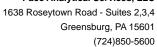
South Dakota Certification

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



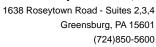


SAMPLE SUMMARY

Project: AAE0894 Plant Hammond

Pace Project No.: 30220163

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30220163001	HGWC-17	Water	05/25/17 09:35	05/30/17 09:45
30220163002	HGWC-18	Water	05/25/17 09:40	05/30/17 09:45





SAMPLE ANALYTE COUNT

Project: AAE0894 Plant Hammond

Pace Project No.: 30220163

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30220163001	HGWC-17	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30220163002	HGWC-18	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

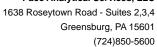


ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0894 Plant Hammond

Pace Project No.: 30220163

Sample: HGWC-17	Lab ID: 302201		Received:	05/30/17 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	0.283 ± 0.209 (0.345) C:93% T:NA	pCi/L	06/08/17 10:00	13982-63-3	
Radium-228	EPA 9320	0.925 ± 0.527 (0.994) C:77% T:83%	pCi/L	06/14/17 15:19	15262-20-1	
Total Radium	Total Radium Calculation	1.21 ± 0.736 (1.34)	pCi/L	06/16/17 13:43	3 7440-14-4	
Sample: HGWC-18	Lab ID: 302201	63002 Collected: 05/25/17 09:40	Received:	05/30/17 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	0.794 ± 0.313 (0.301) C:94% T:NA	pCi/L	06/08/17 10:00	13982-63-3	
Radium-228	EPA 9320	0.835 ± 0.417 (0.723) C:81% T:77%	pCi/L	06/14/17 11:31	15262-20-1	
Total Radium	Total Radium Calculation	1.63 ± 0.730 (1.02)	pCi/L	06/16/17 13:43	3 7440-14-4	





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0894 Plant Hammond

Pace Project No.: 30220163

QC Batch: 260846 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30220163001, 30220163002

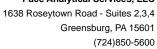
METHOD BLANK: 1284545 Matrix: Water

Associated Lab Samples: 30220163001, 30220163002

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.0515 ± 0.131 (0.318) C:85% T:NA
 pCi/L
 06/08/17 10:00

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





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0894 Plant Hammond

Pace Project No.: 30220163

QC Batch: 260865 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30220163001, 30220163002

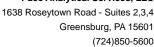
METHOD BLANK: 1284599 Matrix: Water

Associated Lab Samples: 30220163001, 30220163002

Parameter Act \pm Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.187 ± 0.335 (0.733) C:75% T:86% pCi/L 06/14/17 11:31

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.





QUALIFIERS

Project: AAE0894 Plant Hammond

Pace Project No.: 30220163

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

Date: 06/21/2017 01:18 PM

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.

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LAB USE ONLY 00.5 デジンバフ σの中S EQuIS deliverable required (Profile 7564) (O) Results Requested By: 6/21/2017 WO#:30220163 Comments Requested Analysis Date/Time Radium 226, 228, Total \times Owner Received Date: Preserved Containers EONH 7 4 Matrix 9€ GW Received By girrin AAE0811-01 AAE0811-02 Plant Hammond Phone (724) 850-5600 4 1638 Roseytown Road Greensburg, PA 15601 Collect Date/Time Lab ID Date/Time Pace - Pittsburgh 3 Subcontract To: 5/25/2017 9:35 5/25/2017 9:40 Stes. 2,3,4 Workorder Name: Ł Type Sample Ō G Peachtree Corners, GA 30092 Workorder: AAE0894 110 Technology Parkway Pace Analytical Atlanta Transfers Released By Phone (770)-734-4200 Item Sample ID **Betsy McDaniel** HGWC-18 HGWC-17 Report To: 10 9 ∞ Q 3 4 S

Sample Intact 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 Received on Ice Y or N This chain of custody is considered complete as is since this information is available in the owner laboratory. Custody Seal Y or N. ပ \$ Cooler Temperature on Receipt

M (C)

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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

5 - NaOH/ZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - s6°C not frozen 2 - H₂SO₄, ≤6°C REMARKS/ADDITIONAL INFORMATION 4 - NaOH, ≤6°C P- PRODUCT **PRESERVATION** 1 - HCI, ≤6°C SL- SLUDGE allon - I SD-SOUD 3- HNO A- AIR MATRIX CODES 2nd Radium Volume Collected GW - GROUNDWATER SW - SURFACE WATER ST - STORM WATER DW - DRINKING WATER MW - WASTEWATER A - AMBER GLASS G- CLEAR GLASS CONTAINER TYPE mered Into LIMS S - STERILE O - OTHER V- VOA VIAL P - PLASTIC W- WATER racking #. LAB# 4 _ < m S D E O U C <u>ب</u> ۾ 9:55 ПŜ OTHER DATE/TIME: 5/24/17 DATE/TIME: CLIENT COOLER ID: **ANALYSIS REQUESTED** Not Provided to Coulers. 20170525 AP 1&2 COC.xlsx (OSE6/STE6 968-WS) Δ. Radlum 226 & 228 ۵. (EPA 30).0 & SM 2540C) RELINQUISHED BY: M CI, F, SQ, & TDS SAMPLE SHIPPED VIA: UPS FED-EX Custody Seal: RELINQUISHED BY: 7 ۵. Broken CONTAINER TYPE: PRESERVATION: ₽ # ひつMTAiNERS ø 5560 laburch@southemco.com SAMPLE IDENTIFICATION Heath McCorkle HGWC-17 HGWC-16 Maria Padilia 1. 1 Min. 1. A. SAMPLED BY AND TITLE Myles Rogers ARP DATE/TIME:
Markevious Thomas 2027
RECEIVED BY:
DATE/TIME: DA 12 STEEL Plant Hammond - AP 182 S CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER Ċ **8. € 8** 2 0 2 0 2 MATRIX CODE Lauren Petty
REQUESTED COMPLETION DATE: ک ک ≨ ଫ 241 Ralph McGill Blvd SE B10185 Collection PROJECT NAME/STATE 9.40 9:35 Atlanta, GA 3030B CLIENT NAME: Georgia Power 404-505-7239 REPORT TO: PROJECT # Collection 05/25/17 05/25/17 DATE

PAGE

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Sample Condition Upon Receipt Pittsburgh

AM

Face Analytical Client							30	22016
Client	Name:		Pa	U	Georgia	_ Project	#	
					ŭ			
Courier:	ISPS ロ Clier しんけんへ	N []	Comi	nercia	al 🔲 Pace Other			
Custody Seal on Cooler/Box Prese			no	Sea	Is intact: yes	□ no		
	A	1000			et Blue (None)			
Cooler Temperature Observed					rection Factor: \(\)	ΛΑ °C _{Fin:}	al Temp:	LNA °C
Temp should be above freezing to 6°C	Tettib Tol		-	00.	1001,011 4,0101.	_ _		
						Date an	d Initials of p	person examining
Comments:		Yes	No	N/A				
Chain of Custody Present:		/			1.			
Chain of Custody Filled Out:		/			2.			
Chain of Custody Relinquished:				<u>.</u>	3.			,
Sampler Name & Signature on COC:					4.			
Sample Labels match COC:					<u></u>			ļ
-Includes date/time/ID	Matrix: W-	<u> </u>		T				
Samples Arrived within Hold Time:		\angle			6.			
Short Hold Time Analysis (<72hr rer	naining):				7.			
Rush Turn Around Time Requested	<u> </u>		_		8.			
Sufficient Volume:	-	4			9.			
Correct Containers Used:		4			10.			
-Pace Containers Used:					_			
Containers Intact:		4		N. Francis	11.			
Orthophosphate field filtered				1	12.			
Organic Samples checked for dech	lorination:			<u>/</u>	13.			
Filtered volume received for Dissolved		·		_	14.			
All containers have been checked for prese	rvation.				15. PH 22			
All containers needing preservation are foun compliance with EPA recommendation.	d to be in				Birt.			
compliance with EPA recommendation.	Ļ			·	Initial when	Date/time of		
exceptions: VOA, coliform, TOC, O&G	, Phenolics			- 1		preservation		·
					Lot # of added preservative			
Headspace in VOA Vials (>6mm):				/	16.			
rip Blank Present:					17.			
rip Blank Custody Seals Present								
Rad Aqueous Samples Screened > 0.	5 mrem/hr			ļi ļ	nitial when completed:	Date: 5/3	0117	
Client Notification/ Resolution:	حمال د خب			l.				
Person Contacted:				ate/T	me:	Contac	ted B <u>y:</u>	
Comments/ Resolution:								
							·····	
	· · · · · · · · · · · · · · · · · · ·							·
							<u></u> .	
A check in this box indicates	that additio	nal in	form	ation	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.

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Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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):

Sample Collection Date:

Sample Matrix Spike Control Assessment

MSD Aliquot (L. g, F):

MS Target Conc.(pCi/L, g, F): MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated): Sample Result:

Sample Result Counting Uncertainty (pCl/L, g, F):

Sample Matrix Spike Result:

Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Duplicate Result

Ra-226 JC2 6/7/2017 36008 DW Date: Worklist: Matrix: Test: Analyst:

Method Blank Assessment	
MB Sample ID	1284545
MB concentration:	0.052
M/B Counting Uncertainty:	0.131
MB MDC:	0.318
MB Numerical Performance Indicator:	0.77
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Z
	FCS36008	LCSD36008
Count Date:	6/8/2017	
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):	15.852	
Uncertainty (Calculated):	0.746	
Result (pCl/L, g, F):	12.493	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.060	
Numerical Performance Indicator:	-5.08	
Percent Recovery:	78.81%	
Status vs Numerical Indicator:	A/N	
Status vs Recovery:	Pass	

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MSD Speroent 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

MSD Percent Recovery

eteoilai Outeata		other than	LCS/LCSD in the	space below.			30220161002	30220161002DUP		
30220484002	30220161002DUP	0.088	0.147	0.331	0.214	See Below ##	-1.838	115.95%	A/N	Faji**
Duplicate Sample Assessment	Duplicate Sample I.D. 30220161002DUP	Sample Result (pCi/L, g, F):	Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	Are sample and/or duplicate results below MDC?	Duplicate Numerical Performance Indicator:	Duplicate RPD:	Duplicate Status vs Numerical Indicator:	Duplicate Status vs RPD:

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 Duplicate Numerical Performance Indicator:

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

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.

mulailit

Printed: 6/21/2017 7:45 AM TAR DW QC

Face Analytical

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date:

Sample Matrix Spike Control Assessment

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):

JLW 6/9/2017 Ra-228 Test: Analyst: Date: Worklist: Matrix:

36018 DW

Method Blank Assessment

0.333 0.733 1.10 N/A Pass 0.187 MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC:

MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC:

Laboratory Control Sample Assessment

MS Target Conc.(pCl/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCI/L, g, F):

MS Aliquot (L, g, F):

Sample Result

Sample Result Counting Uncertainty (pCl/L, g, F):

Sample Matrix Spike Result.

Spike uncertainty (calculated):

Matrix Spike Result Counting Uncertainty (pCl/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

LCSD36018 SD (Y or N)? LCS36018 6/14/2017 Aliquot Volume (L, g, F): Count Date: Spike I.D.: Spike Concentration (pCi/mL): Volume Used (mL)

17-005 24.293 0.20 0.805 6.036 0.435 5.976 0.656 -0.15 99.02% Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated): Numerical Performance Indicator: Percent Recovery:

Status vs Numerical Indicator:

Status vs Recovery

Duplicate Sample Assessment

Enter Duplicate he space below. sample IDs if other than LCS/LCSD in 30220163002DUP 30220163002 See Below ## 0.389 1.347 0.390

Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Duplicate Result: Duplicate Numerical Performance Indicator:

Sample MS LD. Sample MSD LD. Sample Matrix Spike Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

(Based on the Percent Recoveries) MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator:

MS/ MSD Duplicate Status vs RPD

-1.822 46.94% Ϋ́ Sample I.D.:

Duplicate Sample I.D.:
Sample Result (pcl/I.g. F):
Sample Result Counting Uncertainty (pcl/I.g. F):
Sample Duplicate Result (pcl/I.g. F):
Sample Duplicate Result (pcl/I.g. F): Are sample and/or duplicate results below MDC? Duplicate Numerical Performance Indicator: Duplicate RPD:

Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD:

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

O Mariante Maria

Comments:

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



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: AAJ0310
October 23, 2017

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

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All test results relate only to the samples analyzed.



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 23, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-14	AAJ0310-01	Ground Water	10/04/17 09:42	10/06/17 16:00
HGWC-15	AAJ0310-02	Ground Water	10/04/17 09:35	10/06/17 16:00
HGWC-16	AAJ0310-03	Ground Water	10/04/17 10:35	10/06/17 16:00
HGWC-17	AAJ0310-04	Ground Water	10/04/17 10:30	10/06/17 16:00
HGWC-18	AAJ0310-05	Ground Water	10/04/17 11:00	10/06/17 16:00
Dup-2	AAJ0310-06	Ground Water	10/04/17 00:00	10/06/17 16:00
FB-2	AAJ0310-07	Water	10/04/17 09:25	10/06/17 16:00
FERB-2	AAJ0310-08	Water	10/04/17 09:30	10/06/17 16:00
HGWA-1	AAJ0310-09	Ground Water	10/03/17 09:55	10/06/17 16:00
HGWA-2	AAJ0310-10	Ground Water	10/03/17 10:30	10/06/17 16:00
HGWA-3	AAJ0310-11	Ground Water	10/03/17 10:25	10/06/17 16:00
HGWA-4	AAJ0310-12	Ground Water	10/03/17 11:57	10/06/17 16:00
HGWA-5	AAJ0310-13	Ground Water	10/03/17 13:47	10/06/17 16:00
HGWA-6	AAJ0310-14	Ground Water	10/03/17 14:30	10/06/17 16:00
HGWC-7	AAJ0310-15	Ground Water	10/03/17 11:25	10/06/17 16:00
HGWC-8	AAJ0310-16	Ground Water	10/03/17 11:58	10/06/17 16:00
HGWC-9	AAJ0310-17	Ground Water	10/03/17 12:15	10/06/17 16:00
HGWC-10	AAJ0310-18	Ground Water	10/03/17 13:08	10/06/17 16:00
HGWC-11	AAJ0310-19	Ground Water	10/03/17 13:40	10/06/17 16:00
HGWC-12	AAJ0310-20	Ground Water	10/03/17 14:17	10/06/17 16:00
HGWC-13	AAJ0310-21	Ground Water	10/03/17 15:00	10/06/17 16:00
FB-1	AAJ0310-22	Water	10/03/17 15:10	10/06/17 16:00
FERB-1	AAJ0310-23	Water	10/03/17 15:15	10/06/17 16:00
Dup-1	AAJ0310-24	Ground Water	10/03/17 00:00	10/06/17 16:00



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

Report No.: AAJ0310

Client ID: HGWC-14

Date/Time Sampled: 10/4/2017 9:42:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-01

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3210	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	420	25	2.4	mg/L	EPA 300.0		100	10/12/17 09:44	10/15/17 20:19	7100350	RLC
Fluoride	0.52	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 19:55	7100350	RLC
Sulfate	1400	100	1.7	mg/L	EPA 300.0		100	10/12/17 09:44	10/15/17 20:19	7100350	RLC
Metals, Total											
Boron	20.5	2.00	0.298	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 19:08	7100283	CSW
Calcium	644	250	20.2	mg/L	EPA 6020B		500	10/11/17 09:45	10/16/17 15:13	7100283	CSW



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

Report No.: AAJ0310

Client ID: HGWC-15

Date/Time Sampled: 10/4/2017 9:35:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	lnit.
General Chemistry											
Total Dissolved Solids	1340	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	210	2.5	0.24	mg/L	EPA 300.0		10	10/12/17 09:44	10/15/17 20:40	7100350	RLC
Fluoride	0.60	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 21:38	7100350	RLC
Sulfate	560	25	0.42	mg/L	EPA 300.0		25	10/12/17 09:44	10/18/17 00:21	7100350	RLC
Metals, Total											
Boron	2.00	0.0400	0.0060	mg/L	EPA 6020B		1	10/11/17 09:45	10/12/17 19:13	7100283	CSW
Calcium	230	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 19:19	7100283	CSW



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

Report No.: AAJ0310

Client ID: HGWC-16

Date/Time Sampled: 10/4/2017 10:35:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-03

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	626	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	50	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 21:59	7100350	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 21:59	7100350	RLC
Sulfate	220	10	0.17	mg/L	EPA 300.0		10	10/12/17 09:44	10/15/17 21:00	7100350	RLC
Metals, Total											
Boron	1.43	0.0400	0.0060	mg/L	EPA 6020B		1	10/11/17 09:45	10/12/17 19:25	7100283	CSW
Calcium	156	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 19:31	7100283	CSW



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

Report No.: AAJ0310

Client ID: HGWC-17

Date/Time Sampled: 10/4/2017 10:30:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-04

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1210	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	130	2.5	0.24	mg/L	EPA 300.0		10	10/12/17 09:44	10/15/17 21:21	7100350	RLC
Fluoride	0.93	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 22:20	7100350	RLC
Sulfate	490	10	0.17	mg/L	EPA 300.0		10	10/12/17 09:44	10/15/17 21:21	7100350	RLC
Metals, Total											
Boron	6.80	2.00	0.298	mg/L	EPA 6020B		50	10/11/17 09:45	10/16/17 15:19	7100283	CSW
Calcium	305	25.0	2 02	ma/L	EPA 6020B		50	10/11/17 09:45	10/12/17 19:53	7100283	CSW



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

Report No.: AAJ0310

Client ID: HGWC-18

Date/Time Sampled: 10/4/2017 11:00:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	2200	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	260	25	2.4	mg/L	EPA 300.0		100	10/12/17 09:46	10/15/17 23:04	7100351	RLC
Fluoride	0.95	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 17:13	7100351	RLC
Sulfate	870	100	1.7	mg/L	EPA 300.0	B-01	100	10/12/17 09:46	10/15/17 23:04	7100351	RLC
Metals, Total											
Boron	10.0	2.00	0.298	mg/L	EPA 6020B		50	10/11/17 09:45	10/16/17 15:25	7100283	CSW
Calcium	470	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 20:05	7100283	CSW



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

Report No.: AAJ0310

Client ID: Dup-2

Date/Time Sampled: 10/4/2017 12:00:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-06

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	653	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	47	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 17:35	7100351	RLC
Fluoride	0.15	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:46	10/12/17 17:35	7100351	RLC
Sulfate	220	10	0.17	mg/L	EPA 300.0	B-01	10	10/12/17 09:46	10/15/17 23:25	7100351	RLC
Metals, Total											
Boron	2.16	0.400	0.0595	mg/L	EPA 6020B		10	10/11/17 09:45	10/16/17 16:16	7100283	CSW
Calcium	160	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 20:16	7100283	CSW



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

Report No.: AAJ0310

Client ID: FB-2

Date/Time Sampled: 10/4/2017 9:25:00AM

Matrix: Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-07

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	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	0.09	0.25	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:46	10/12/17 17:56	7100351	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 17:56	7100351	RLC
Sulfate	0.15	1.0	0.02	mg/L	EPA 300.0	J, B-01	1	10/12/17 09:46	10/12/17 17:56	7100351	RLC
Metals, Total											
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/11/17 09:45	10/14/17 20:51	7100283	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/11/17 09:45	10/12/17 20:22	7100283	CSW



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

Report No.: AAJ0310

Client ID: FERB-2

Date/Time Sampled: 10/4/2017 9:30:00AM

Matrix: Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-08

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	37	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:46	10/12/17 18:17	7100351	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 18:17	7100351	RLC
Sulfate	0.08	1.0	0.02	mg/L	EPA 300.0	J, B-01	1	10/12/17 09:46	10/12/17 18:17	7100351	RLC
Metals, Total											
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/11/17 09:45	10/14/17 20:57	7100283	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/11/17 09:45	10/12/17 20:28	7100283	CSW



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAJ0310

Client ID: HGWA-1

Date/Time Sampled: 10/3/2017 9:55:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-09

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	343	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	5.6	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 18:38	7100351	RLC
Fluoride	0.13	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:46	10/12/17 18:38	7100351	RLC
Sulfate	42	1.0	0.02	mg/L	EPA 300.0	B-01	1	10/12/17 09:46	10/12/17 18:38	7100351	RLC
Metals, Total											
Boron	0.0198	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/11/17 09:45	10/14/17 21:02	7100283	CSW
Calcium	102	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 20:39	7100283	CSW



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Attention: Mr. Joju Abraham

Report No.: AAJ0310

Client ID: HGWA-2

Date/Time Sampled: 10/3/2017 10:30:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-10

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	127	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	6.3	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 19:00	7100351	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 19:00	7100351	RLC
Sulfate	47	5.0	0.08	mg/L	EPA 300.0	B-01	5	10/12/17 09:46	10/15/17 23:46	7100351	RLC
Metals, Total											
Boron	0.0386	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/11/17 09:45	10/14/17 21:20	7100283	CSW
Calcium	20.2	5.00	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 21:02	7100283	CSW



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAJ0310

Client ID: HGWA-3

Date/Time Sampled: 10/3/2017 10:25:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-11

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	300	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	6.5	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 19:21	7100351	RLC
Fluoride	0.13	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:46	10/12/17 19:21	7100351	RLC
Sulfate	48	1.0	0.02	mg/L	EPA 300.0	B-01	1	10/12/17 09:46	10/12/17 19:21	7100351	RLC
Metals, Total											
Boron	0.0097	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/11/17 09:45	10/14/17 21:25	7100283	CSW
Calcium	76.3	25.0	2 02	ma/L	EPA 6020B		50	10/11/17 09:45	10/12/17 21:13	7100283	CSW



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAJ0310

Client ID: HGWA-4

Date/Time Sampled: 10/3/2017 11:57:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-12

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	161	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	4.8	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 19:42	7100351	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 19:42	7100351	RLC
Sulfate	1.3	1.0	0.02	mg/L	EPA 300.0	B-01	1	10/12/17 09:46	10/12/17 19:42	7100351	RLC
Metals, Total											
Boron	0.0162	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/11/17 09:45	10/14/17 21:31	7100283	CSW
Calcium	46.9	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 21:25	7100283	CSW



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

Report No.: AAJ0310

Client ID: HGWA-5

Date/Time Sampled: 10/3/2017 1:47:00PM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-13

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	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 20:03	7100351	RLC
Fluoride	0.06	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:46	10/12/17 20:03	7100351	RLC
Sulfate	21	1.0	0.02	mg/L	EPA 300.0	B-01	1	10/12/17 09:46	10/12/17 20:03	7100351	RLC
Metals, Total											
Boron	0.0071	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/11/17 09:45	10/14/17 21:37	7100283	CSW
Calcium	29.0	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 21:36	7100283	CSW



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

Report No.: AAJ0310

Client ID: HGWA-6

Date/Time Sampled: 10/3/2017 2:30:00PM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-14

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	lnit.
General Chemistry											
Total Dissolved Solids	243	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	2.1	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 20:24	7100351	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 20:24	7100351	RLC
Sulfate	38	1.0	0.02	mg/L	EPA 300.0	B-01	1	10/12/17 09:46	10/12/17 20:24	7100351	RLC
Metals, Total											
Boron	0.0170	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/11/17 09:45	10/14/17 21:42	7100283	CSW
Calcium	55.1	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 21:48	7100283	CSW



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

Report No.: AAJ0310

Client ID: HGWC-7

Date/Time Sampled: 10/3/2017 11:25:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-15

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	464	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	52	2.5	0.24	mg/L	EPA 300.0		10	10/12/17 09:46	10/16/17 00:06	7100351	RLC
Fluoride	0.17	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:46	10/12/17 22:12	7100351	RLC
Sulfate	120	10	0.17	mg/L	EPA 300.0	B-01	10	10/12/17 09:46	10/16/17 00:06	7100351	RLC
Metals, Total											
Boron	0.967	0.400	0.0595	mg/L	EPA 6020B		10	10/11/17 09:45	10/17/17 13:23	7100283	CSW
Calcium	108	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 22:10	7100283	CSW



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

Report No.: AAJ0310

Client ID: HGWC-8

Date/Time Sampled: 10/3/2017 11:58:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-16

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	812	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	130	2.5	0.24	mg/L	EPA 300.0		10	10/12/17 09:46	10/16/17 00:27	7100351	RLC
Fluoride	0.66	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 22:33	7100351	RLC
Sulfate	230	10	0.17	mg/L	EPA 300.0	B-01	10	10/12/17 09:46	10/16/17 00:27	7100351	RLC
Metals, Total											
Boron	2.84	2.00	0.298	mg/L	EPA 6020B		50	10/11/17 09:45	10/17/17 13:23	7100283	CSW
Calcium	158	25.0	2.02	mg/L	EPA 6020B		50	10/11/17 09:45	10/12/17 22:22	7100283	CSW



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

Report No.: AAJ0310

Client ID: HGWC-9

Date/Time Sampled: 10/3/2017 12:15:00PM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-17

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1040	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	160	2.5	0.24	mg/L	EPA 300.0		10	10/12/17 09:46	10/16/17 00:48	7100351	RLC
Fluoride	0.53	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/12/17 23:39	7100351	RLC
Sulfate	240	10	0.17	mg/L	EPA 300.0	B-01	10	10/12/17 09:46	10/16/17 00:48	7100351	RLC
Metals, Total											
Boron	2.05	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 19:29	7100377	KLH
Calcium	188	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 18:05	10/16/17 19:35	7100377	KLH



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

Report No.: AAJ0310

Client ID: HGWC-10

Date/Time Sampled: 10/3/2017 1:08:00PM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-18

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	746	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	100	2.5	0.24	mg/L	EPA 300.0		10	10/12/17 09:46	10/16/17 01:08	7100351	RLC
Fluoride	0.46	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 00:00	7100351	RLC
Sulfate	200	10	0.17	mg/L	EPA 300.0	B-01	10	10/12/17 09:46	10/16/17 01:08	7100351	RLC
Metals, Total											
Boron	0.871	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 19:40	7100377	KLH
Calcium	162	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 18:05	10/16/17 19:46	7100377	KLH



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

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Attention: Mr. Joju Abraham

Report No.: AAJ0310

Client ID: HGWC-11

Date/Time Sampled: 10/3/2017 1:40:00PM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-19

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	443	25	10	mg/L	SM 2540 C		1	10/09/17 12:55	10/09/17 12:55	7100222	JPT
Inorganic Anions											
Chloride	28	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 00:22	7100351	RLC
Fluoride	0.56	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 00:22	7100351	RLC
Sulfate	230	10	0.17	mg/L	EPA 300.0	B-01	10	10/12/17 09:46	10/16/17 01:29	7100351	RLC
Metals, Total											
Boron	1.47	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 19:52	7100377	KLH
Calcium	87.7	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 18:05	10/16/17 19:57	7100377	KLH



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

Report No.: AAJ0310

Client ID: HGWC-12

Date/Time Sampled: 10/3/2017 2:17:00PM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-20

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	608	25	10	mg/L	SM 2540 C		1	10/09/17 14:10	10/09/17 14:10	7100223	JPT
Inorganic Anions											
Chloride	93	1.2	0.12	mg/L	EPA 300.0		5	10/12/17 09:46	10/16/17 01:50	7100351	RLC
Fluoride	0.58	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 00:44	7100351	RLC
Sulfate	190	5.0	0.08	mg/L	EPA 300.0	B-01	5	10/12/17 09:46	10/16/17 01:50	7100351	RLC
Metals, Total											
Boron	2.35	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 20:03	7100377	KLH
Calcium	130	25.0	2 02	ma/L	EPA 6020B		50	10/12/17 18:05	10/16/17 20:09	7100377	KLH



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

Report No.: AAJ0310

Client ID: HGWC-13

Date/Time Sampled: 10/3/2017 3:00:00PM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-21

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	268	25	10	mg/L	SM 2540 C		1	10/09/17 14:10	10/09/17 14:10	7100223	JPT
Inorganic Anions											
Chloride	29	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 01:06	7100351	RLC
Fluoride	0.83	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 01:06	7100351	RLC
Sulfate	67	5.0	0.08	mg/L	EPA 300.0	B-01	5	10/12/17 09:46	10/20/17 09:18	7100351	RLC
Metals, Total											
Boron	1.43	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 20:15	7100377	KLH
Calcium	62.0	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 18:05	10/16/17 20:20	7100377	KLH



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

Report No.: AAJ0310

Client ID: FB-1

Date/Time Sampled: 10/3/2017 3:10:00PM

Matrix: Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-22

								Preparation	Analytical		
Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Date	Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/09/17 14:10	10/09/17 14:10	7100223	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:46	10/13/17 01:28	7100351	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 01:28	7100351	RLC
Sulfate	0.06	1.0	0.02	mg/L	EPA 300.0	J, B-01	1	10/12/17 09:46	10/13/17 01:28	7100351	RLC
Metals, Total											
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 20:37	7100377	KLH
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 20:37	7100377	KLH



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

Report No.: AAJ0310

Client ID: FERB-1

Date/Time Sampled: 10/3/2017 3:15:00PM

Matrix: Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-23

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	10/09/17 14:10	10/09/17 14:10	7100223	JPT
Inorganic Anions											
Chloride	0.10	0.25	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:46	10/13/17 02:55	7100351	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 02:55	7100351	RLC
Sulfate	0.04	1.0	0.02	mg/L	EPA 300.0	J, B-01	1	10/12/17 09:46	10/13/17 02:55	7100351	RLC
Metals, Total											
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 20:49	7100377	KLH
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 20:49	7100377	KLH



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

Report No.: AAJ0310

Client ID: Dup-1

Date/Time Sampled: 10/3/2017 12:00:00AM

Matrix: Ground Water

October 23, 2017

Project: CCR Event

Lab Number ID: AAJ0310-24

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	305	25	10	mg/L	SM 2540 C		1	10/09/17 14:10	10/09/17 14:10	7100223	JPT
Inorganic Anions											
Chloride	29	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 03:17	7100351	RLC
Fluoride	0.57	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:46	10/13/17 03:17	7100351	RLC
Sulfate	68	5.0	0.08	mg/L	EPA 300.0	B-01	5	10/12/17 09:46	10/16/17 02:31	7100351	RLC
Metals, Total											
Boron	1.50	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 21:00	7100377	KLH
Calcium	62.6	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 18:05	10/16/17 21:06	7100377	KLH



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAJ0310

October 23, 2017

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100222 - SM 2540 C											
Blank (7100222-BLK1)						Prepare	ed & Analy	yzed: 10/09	9/17		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7100222-BS1)						Prepare	ed & Anal	yzed: 10/09	9/17		
Total Dissolved Solids	387	25	10	mg/L	400.00		97	84-108			
Duplicate (7100222-DUP1)		So	urce: AAJ02	239-22		Prepare	ed & Anal	yzed: 10/09	9/17		
Total Dissolved Solids	ND	25	10	mg/L		ND		,	-	10	
Duplicate (7100222-DUP2)		So	urce: AAJ03	310-11		Prepare	ed & Anal	yzed: 10/09	9/17		
Total Dissolved Solids	280	25	10	mg/L		300		,	7	10	
Batch 7100223 - SM 2540 C											
Blank (7100223-BLK1)						Prepare	ed & Analy	yzed: 10/09	9/17		
Total Dissolved Solids	ND	25	10	mg/L		•	•				
LCS (7100223-BS1)						Prepare	ed & Anal	yzed: 10/09	9/17		
Total Dissolved Solids	360	25	10	mg/L	400.00	•	90	84-108			
Duplicate (7100223-DUP1)		So	urce: AAJ01	126-10		Prepare	ed & Analy	yzed: 10/09	9/17		
Total Dissolved Solids	ND	25	10	mg/L		ND	 	,	<u> </u>	10	
Duplicate (7100223-DUP2)		So	urce: AAJ02	239-10		Prepare	ed & Anal	yzed: 10/09	9/17		
Total Dissolved Solids	63	25	10	mg/L		74		,	16	10	QR-03
Batch 7100258 - SM 2540 C											
Blank (7100258-BLK1)						Prepare	ed & Anal	yzed: 10/10	0/17		
Total Dissolved Solids	ND	25	10	mg/L				•			



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAJ0310

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October 23, 2017

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100258 - SM 2540 C											
LCS (7100258-BS1)						Prepar	ed & Analy	/zed: 10/10	0/17		
Total Dissolved Solids	367	25	10	mg/L	400.00		92	84-108			
Duplicate (7100258-DUP1)		Sou	ırce: AAJ02	39-12		Prepar	ed & Analy	/zed: 10/10	0/17		
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7100258-DUP2)		Sou	ırce: AAJ02	45-05		Prepar	ed & Analy	/zed: 10/10	0/17		
Total Dissolved Solids	369	25	10	mg/L		359			3	10	



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAJ0310

October 23, 2017

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100350 - EPA 300.0											
Blank (7100350-BLK1)						Prepare	ed: 10/12/	17 Analyz	ed: 10/13/	′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 (7100350-BS1)						Prepare	ed: 10/12/	17 Analyz	ed: 10/13/	′17	
Chloride	10.5	0.25	0.02	mg/L	10.020		105	90-110			
Fluoride	9.45	0.30	0.03	mg/L	10.020		94	90-110			
Sulfate	10.8	1.0	0.02	mg/L	10.050		107	90-110			
Matrix Spike (7100350-MS1)		Sou	ırce: AAJ02	45-12		Prepare	ed: 10/12/	17 Analyz	ed: 10/13/	′17	
Chloride	12.2	0.25	0.02	mg/L	10.020	1.49	107	90-110			
Fluoride	10.2	0.30	0.03	mg/L	10.020	0.11	101	90-110			
Sulfate	25.4	1.0	0.02	mg/L	10.050	16.2	92	90-110			
Matrix Spike (7100350-MS2)		Sou	ırce: AAJ02	45-18		Prepare	ed: 10/12/	17 Analyz	ed: 10/13/	′17	
Chloride	11.8	0.25	0.02	mg/L	10.020	1.44	103	90-110			
Fluoride	10.1	0.30	0.03	mg/L	10.020	0.09	100	90-110			
Sulfate	18.4	1.0	0.02	mg/L	10.050	8.31	100	90-110			
Matrix Spike Dup (7100350-MSD1)		Sou	ırce: AAJ02	45-12		Prepare	ed: 10/12/	17 Analyz	ed: 10/13/	′17	
Chloride	11.6	0.25	0.02	mg/L	10.020	1.49	101	90-110	5	15	
Fluoride	9.85	0.30	0.03	mg/L	10.020	0.11	97	90-110	4	15	
Sulfate	25.4	1.0	0.02	mg/L	10.050	16.2	92	90-110	0.1	15	
Batch 7100351 - EPA 300.0											
Blank (7100351-BLK1)						Prepare	ed & Analy	/zed: 10/12	2/17		
Chloride	ND	0.25	0.02	mg/L							
Fluoride	ND	0.30	0.03	mg/L							
Sulfate	0.02	1.0	0.02	mg/L							



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

Report No.: AAJ0310

October 23, 2017

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100351 - EPA 300.0											
LCS (7100351-BS1)						Prepare	ed & Analy	/zed: 10/12	2/17		
Chloride	10.5	0.25	0.02	mg/L	10.020		105	90-110			
Fluoride	10.1	0.30	0.03	mg/L	10.020		101	90-110			
Sulfate	10.7	1.0	0.02	mg/L	10.050		106	90-110			
Matrix Spike (7100351-MS1)		Sou	ırce: AAJ03	10-16		Prepare	ed & Analy	/zed: 10/12	2/17		
Chloride	102	0.25	0.02	mg/L	10.020	102	NR	90-110			QM-02
Fluoride	10.9	0.30	0.03	mg/L	10.020	0.66	102	90-110			
Sulfate	172	1.0	0.02	mg/L	10.050	179	NR	90-110			QM-02
Matrix Spike (7100351-MS2)		Sou	ırce: AAJ03	10-21		Prepare	ed: 10/12/	17 Analyz	ed: 10/13	/17	
Chloride	36.5	0.25	0.02	mg/L	10.020	29.5	70	90-110			QM-02
Fluoride	11.0	0.30	0.03	mg/L	10.020	0.83	101	90-110			
Sulfate	69.3	1.0	0.02	mg/L	10.050	66.2	31	90-110			QM-02
Matrix Spike Dup (7100351-MSD1)		Sou	ırce: AAJ03	10-16		Prepare	ed & Analy	/zed: 10/12	2/17		
Chloride	102	0.25	0.02	mg/L	10.020	102	NR	90-110	0.4	15	QM-02
Fluoride	11.0	0.30	0.03	mg/L	10.020	0.66	103	90-110	0.6	15	
Sulfate	172	1.0	0.02	mg/L	10.050	179	NR	90-110	0.2	15	QM-02



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Attention: Mr. Joju Abraham

Report No.: AAJ0310

October 23, 2017

Prepared: 10/11/17 Analyzed: 10/12/17 Analyze	Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antmonyy ND 0,0050 0,0006 mg/L Arsenic ND 0,0050 0,0050 mg/L Baryllum ND 0,0050 0,0000 mg/L Beryllum ND 0,0000 0,0000 mg/L Beryllum ND 0,0000 0,0000 mg/L Beryllum ND 0,0000 0,0000 mg/L Calcium ND 0,0000 0,0000 mg/L Calcium ND 0,0000 0,0000 mg/L Calcium ND 0,0100 0,0005 mg/L Calcium ND 0,0100 0,0005 mg/L Cabelt ND 0,0100 0,0005 mg/L Cabelt ND 0,0100 0,0005 mg/L Cabelt ND 0,0100 0,0000 mg/L Cabelt ND 0,0100 0,0000 mg/L Cabelt ND 0,0100 0,0000 mg/L Beryllum ND 0,0100 0,0000 mg/L Cabelt ND 0,000	Batch 7100283 - EPA 3005A											
Arsenic ND 0,0050 0,0004 mg/L service	Blank (7100283-BLK1)						Prepar	ed: 10/11/	17 Analyz	ed: 10/12/	17	
Barlum ND 0.0100 0.0003 mg/L Bernillum ND 0.0030 0.00099 mg/L Bernillum ND 0.0030 0.00099 mg/L 0.0001 0.000	Antimony	ND	0.0030	0.0006	mg/L				•			
Deryllium	Arsenic	ND	0.0050	0.0005	mg/L							
Beron ND 0.0400 0.0060 mg/L	Barium	ND	0.0100	0.0004	mg/L							
Cadmium ND 0.001 0 0.0001 0 mg/L calcium mg/L calcium nD 0.500 0 0.0444 mg/L calcium mg/L calcium nD 0.500 0 0.0444 mg/L calcium mg/L calcium nD 0.0100 0 0.0003 mg/L calcium ng/L calcium nD 0.0100 0 0.0003 mg/L calcium ng/L calcium nD 0.0100 0 nD ng/L calcium nD nD 0.0100 0 nD ng/L calcium nD nD 0.0100 0 nD ng/L calcium nD	Beryllium	ND	0.0030	0.00009	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 0.0002 0.0050 0.0000 mg/L Nickel ND 0.0100 0.0005 mg/L Selenium ND 0.0100 0.0002 mg/L Silver ND 0.0100 0.0002 mg/L Thaillium ND 0.0100 0.0002 mg/L Vanadium ND 0.0100 0.0012 mg/L Ithibium ND 0.0100 0.0012 mg/L Ithibium ND 0.0100 0.0012 mg/L Arrange ND 0.0100 0.0012 mg/L 0.1000 108 80-120 Arrange ND 0.0100 0.0012 mg/L 0.10000 108 80-120 Earli	Boron	ND	0.0400	0.0060	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 Copper ND 0.0050 0.00007 mg/L Copper ND 0.0005 0.0005 mg/L Copper ND 0.0100 0.0005 mg/L Copper ND 0.0100 0.0005 mg/L Copper ND 0.0100 0.0005 mg/L Copper ND 0.0005 0.0005 mg/L Copper ND 0.0005 0.0005 mg/L Copper 0.0005 0.0005 mg/L Copper 0.0005 0.0005 mg/L Copper 0.0005 0.0005 mg/L Copper 0.0005 0.0005 mg/L 0.00005 mg/L Copper 0.0005 0.0005 mg/L 0.00005 mg/L 0.00005 mg/L Copper 0.0005 0.0005 mg/L 0.00005 mg/L	Cadmium	ND	0.0010	0.0001	mg/L							
Cobalt ND 0.0100 0.0003 mg/L Copper ND 0.0250 0.0003 mg/L Lead 0.0002 0.0050 0.00007 mg/L Molybdenum ND 0.0100 0.0010 mg/L Nickel ND 0.0100 0.0018 mg/L Selenium ND 0.0100 0.0018 mg/L Silver ND 0.0100 0.0002 mg/L Thallium ND 0.0100 0.0012 mg/L Vanadium ND 0.0100 0.0012 mg/L Lithium ND 0.0100 0.0012 mg/L Lithium ND 0.0500 0.0015 mg/L Lithium ND 0.0500 0.0012 mg/L Lithium ND 0.0500 0.0015 mg/L 0.10000 108 80-120 Arsenic 0.0992 0.0050 0.0004 mg/L 0.10000 195 80-120 <td< td=""><td>Calcium</td><td>ND</td><td>0.500</td><td>0.0404</td><td>mg/L</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Calcium	ND	0.500	0.0404	mg/L							
Copper	Chromium	ND	0.0100	0.0005	mg/L							
Lead 0,0002 0,0005 0,00007 mg/L	Cobalt	ND	0.0100	0.0003	mg/L							
Molybdenum ND 0.0100 0.0010 mg/L Selenium ND 0.0100 0.0005 mg/L Selenium ND 0.0100 0.0002 mg/L Thailium ND 0.0500 0.0005 mg/L Thailium ND 0.0500 0.0005 mg/L Thailium ND 0.0500 0.0005 mg/L Thailium ND 0.0000 0.0005 mg/L Thailium ND 0.0000 0.0005 mg/L 0.0000 108 80-120 Thailium ND 0.0000 0.0006 mg/L 0.10000 100 80-120 Thailium ND 0.0000 0.0000 mg/L 0.10000 100 80-120 Thailium 0.0000 0.0000 mg/L 0.10000 100 80-120 Thailium 0.100 0.0010 0.0000 mg/L 0.10000 101 80-120 Thailium 0.101 0.0000 0.0000 mg/L 0.10000 101 80-120 Thailium 0.102 0.0100 0.0000 mg/L 0.10000 102 80-120 Thailium 0.102 0.0100 0.0100 0.0012 mg/L 0.1000	Copper	ND	0.0250	0.0003	mg/L							
Nickel ND 0.0100 0.0005 mg/L Selenium ND 0.0100 0.0002 mg/L Silver ND 0.0100 0.0002 mg/L Thallium ND 0.0100 0.0005 mg/L Zinc ND 0.0100 0.0012 mg/L Zinc ND 0.0100 0.0015 mg/L Zinc ND 0.0500 0.0015 mg/L Lithium ND 0.0500 0.0015 mg/L Lithium ND 0.0500 0.0015 mg/L LCS (7100283-BS1)	Lead	0.0002	0.0050	0.00007	mg/L							J
Selenium ND 0.0100 0.0108 mg/L Silver ND 0.0100 0.0002 mg/L Thallium ND 0.0101 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 Lithium ND 0.0500 0.0015 mg/L Lithium ND 0.0500 0.0015 mg/L LCS (7100283-BS1) Prepared: 10/11/17 Analyzed: 10/12/17 Antimony 0.108 0.0030 0.0006 mg/L 0.10000 108 80-120 Arsenic 0.0992 0.0050 0.0005 mg/L 0.10000 195 80-120 Barium 0.105 0.0100 0.0004 mg/L 0.10000 195 80-120 Cadmium 0.1099 0.0030 0.00009 mg/L 0.10000 100 80-120 <td< td=""><td>Molybdenum</td><td>ND</td><td>0.0100</td><td>0.0010</td><td>mg/L</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Molybdenum	ND	0.0100	0.0010	mg/L							
ND	Nickel	ND	0.0100	0.0005	mg/L							
Thailium ND 0.0010 0.0005 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 Lithium ND 0.0500 0.0015 mg/L LCS (7100283-BS1) LCS (7100283-BS1) LCS (7100283-BS1)	Selenium	ND	0.0100	0.0018	mg/L							
Variadium ND 0.0100 0.0012 mg/L Zinc ND 0.0100 0.0012 mg/L Lithium ND 0.0500 0.0015 mg/L Prepared: 10/11/17 Analyzed: 10/12/17 Activition LCS (7100283-BS1) Prepared: 10/11/17 Analyzed: 10/12/17 Antimony 0.108 0.0030 0.0006 mg/L 0.10000 108 80-120 Arsenic 0.0992 0.0050 0.0005 mg/L 0.10000 105 80-120 Beryllium 0.0990 0.0030 0.0004 mg/L 0.10000 105 80-120 Cadmium 0.100 0.0010 0.0001 mg/L 0.10000 100 80-120 Chromium 0.101 0.001 0.0001 mg/L 0.10000 101 80-120 Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.025 0.0003 mg/L	Silver	ND	0.0100	0.0002	mg/L							
ND	Thallium	ND	0.0010	0.00005	mg/L							
Lithium ND 0.0500 0.0015 mg/L Prepared: 10/11/17 Analyzed: 10/12/17 Antimony 0.108 0.0030 0.0006 mg/L 0.10000 108 80-120 Arsenic 0.0992 0.0050 0.0004 mg/L 0.10000 99 80-120 Barium 0.105 0.0100 0.0004 mg/L 0.10000 105 80-120 Beryllium 0.0990 0.0030 0.00009 mg/L 0.10000 99 80-120 Cadmium 0.100 0.0010 0.0001 mg/L 0.10000 100 80-120 Chromium 0.102 0.0100 0.0005 mg/L 0.10000 102 80-120 Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Selenium 0.102 0.0100 0.0018 mg/L 0.10000 1	Vanadium	ND	0.0100	0.0012	mg/L							
Prepared: 10/11/17 Analyzed: 10/12/17	Zinc	ND	0.0100	0.0012	mg/L							
Antimony 0.108 0.0030 0.0066 mg/L 0.10000 108 80-120 Arsenic 0.0992 0.0050 0.0005 mg/L 0.10000 99 80-120 Barium 0.105 0.0100 0.0004 mg/L 0.10000 105 80-120 Beryllium 0.0990 0.0030 0.00009 mg/L 0.10000 99 80-120 Cadmium 0.100 0.0010 0.0001 mg/L 0.10000 100 80-120 Chromium 0.102 0.0100 0.0005 mg/L 0.10000 102 80-120 Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Nickel 0.0972 0.0100 0.0018 mg/L 0.10000 103 <	Lithium	ND	0.0500	0.0015	mg/L							
Arsenic 0.0992 0.0050 0.0005 mg/L 0.10000 99 80-120 Barium 0.105 0.0100 0.0004 mg/L 0.10000 105 80-120 Beryllium 0.0990 0.0030 0.00009 mg/L 0.10000 99 80-120 Cadmium 0.100 0.0010 0.0001 mg/L 0.10000 100 80-120 Chromium 0.102 0.0100 0.0005 mg/L 0.10000 102 80-120 Cobalt 0.101 0.010 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.00007 mg/L 0.10000 102 80-120 Nickel 0.0972 0.0100 0.0005 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Silver 0.102 0.0100 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.0005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.00012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	LCS (7100283-BS1)						Prepar	ed: 10/11/	17 Analyz	ed: 10/12/	17	
Barium 0.105 0.0100 0.0004 mg/L 0.10000 105 80-120 Beryllium 0.0990 0.0030 0.00009 mg/L 0.10000 99 80-120 Cadmium 0.100 0.0010 0.0001 mg/L 0.10000 100 80-120 Chromium 0.102 0.0100 0.0005 mg/L 0.10000 101 80-120 Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Lead 0.102 0.050 0.00007 mg/L 0.10000 102 80-120 Nickel 0.0972 0.0100 0.0005 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 102 80-120 Thallium 0.102 0.0100 0.00012 mg/L 0.10000 102	Antimony	0.108	0.0030	0.0006	mg/L	0.10000		108	80-120			
Beryllium 0.0990 0.0030 0.00009 mg/L 0.10000 99 80-120 Cadmium 0.100 0.0010 0.0001 mg/L 0.10000 100 80-120 Chromium 0.102 0.0100 0.0005 mg/L 0.10000 102 80-120 Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.00007 mg/L 0.10000 102 80-120 Nickel 0.0972 0.0100 0.0005 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Thallium 0.102 0.0100 0.0005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102	Arsenic	0.0992	0.0050	0.0005	mg/L	0.10000		99	80-120			
Cadmium 0.100 0.0010 0.0001 mg/L 0.10000 100 80-120 Chromium 0.102 0.0100 0.0005 mg/L 0.10000 102 80-120 Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.00007 mg/L 0.10000 102 80-120 Nickel 0.0972 0.0100 0.0005 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Silver 0.102 0.0100 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 <t< td=""><td>Barium</td><td>0.105</td><td>0.0100</td><td>0.0004</td><td>mg/L</td><td>0.10000</td><td></td><td>105</td><td>80-120</td><td></td><td></td><td></td></t<>	Barium	0.105	0.0100	0.0004	mg/L	0.10000		105	80-120			
Chromium 0.102 0.0100 0.0005 mg/L 0.10000 102 80-120 Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.00007 mg/L 0.10000 102 80-120 Nickel 0.0972 0.0100 0.0005 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Silver 0.102 0.0100 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 8	Beryllium	0.0990	0.0030	0.00009	mg/L	0.10000		99	80-120			
Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 101 80-120 Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.00007 mg/L 0.10000 102 80-120 Nickel 0.0972 0.0100 0.0005 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Silver 0.102 0.0100 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.00012 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	Cadmium	0.100	0.0010	0.0001	mg/L	0.10000		100	80-120			
Copper 0.101 0.0250 0.0003 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.00007 mg/L 0.10000 102 80-120 Nickel 0.0972 0.0100 0.0005 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Silver 0.102 0.0100 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.00012 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	Chromium	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Lead 0.102 0.0050 0.00007 mg/L 0.10000 102 80-120 Nickel 0.0972 0.0100 0.0005 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Silver 0.102 0.0100 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.0005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	Cobalt	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Nickel 0.0972 0.0100 0.0005 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Silver 0.102 0.0100 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.0005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	Copper	0.101	0.0250	0.0003	mg/L	0.10000		101	80-120			
Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Silver 0.102 0.0100 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.00005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	Lead	0.102	0.0050	0.00007	mg/L	0.10000		102	80-120			
Silver 0.102 0.0100 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.00005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	Nickel	0.0972	0.0100	0.0005	mg/L	0.10000		97	80-120			
Thallium 0.102 0.0010 0.00005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	Selenium	0.103	0.0100	0.0018	mg/L	0.10000		103	80-120			
Vanadium 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120 Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	Silver	0.102	0.0100	0.0002	mg/L	0.10000		102	80-120			
Zinc 0.102 0.0100 0.0012 mg/L 0.10000 102 80-120	Thallium	0.102	0.0010	0.00005	mg/L	0.10000		102	80-120			
	Vanadium	0.102	0.0100	0.0012	mg/L	0.10000		102	80-120			
Lithium 0.104 0.0500 0.0015 mg/L 0.10000 104 80-120	Zinc	0.102	0.0100	0.0012	mg/L	0.10000		102	80-120			
	Lithium	0.104	0.0500	0.0015	mg/L	0.10000		104	80-120			



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

Report No.: AAJ0310

October 23, 2017

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100283 - EPA 3005A											
Matrix Spike (7100283-MS1)		Soi	urce: AAJ03	10-01		Prepar	ed: 10/11/	17 Analyze	ed: 10/12/	1 7	
Antimony	0.110	0.0030	0.0006	mg/L	0.10000	ND	110	75-125			
Arsenic	0.115	0.0050	0.0005	mg/L	0.10000	0.0081	107	75-125			
Barium	0.129	0.0100	0.0004	mg/L	0.10000	0.0220	107	75-125			
Beryllium	0.0974	0.0150	0.0005	mg/L	0.10000	ND	97	75-125			
Cadmium	0.100	0.0010	0.0001	mg/L	0.10000	ND	100	75-125			
Chromium	0.0982	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Cobalt	0.119	0.0100	0.0003	mg/L	0.10000	0.0233	95	75-125			
Copper	0.0848	0.0250	0.0003	mg/L	0.10000	ND	85	75-125			
Lead	0.0880	0.0050	0.00007	mg/L	0.10000	0.0015	86	75-125			
Nickel	0.0931	0.0100	0.0005	mg/L	0.10000	0.0053	88	75-125			
Selenium	0.125	0.0100	0.0018	mg/L	0.10000	0.0143	111	75-125			
Silver	0.0927	0.0100	0.0002	mg/L	0.10000	ND	93	75-125			
Thallium	0.0925	0.0010	0.00005	mg/L	0.10000	0.0003	92	75-125			
Vanadium	0.104	0.0100	0.0012	mg/L	0.10000	ND	104	75-125			
Zinc	0.0916	0.0100	0.0012	mg/L	0.10000	0.0046	87	75-125			
Lithium	0.102	0.250	0.0075	mg/L	0.10000	ND	102	75-125			J
Matrix Spike Dup (7100283-MSD1)		Soi	urce: AAJ03	10-01		Prepar	ed: 10/11/	17 Analyze	ed: 10/12/	′17	
Antimony	0.106	0.0030	0.0006	mg/L	0.10000	ND	106	75-125	3	20	
Arsenic	0.114	0.0050	0.0005	mg/L	0.10000	0.0081	106	75-125	0.8	20	
Barium	0.124	0.0100	0.0004	mg/L	0.10000	0.0220	102	75-125	4	20	
Beryllium	0.0972	0.0150	0.0005	mg/L	0.10000	ND	97	75-125	0.2	20	
Cadmium	0.0967	0.0010	0.0001	mg/L	0.10000	ND	97	75-125	3	20	
Chromium	0.0969	0.0100	0.0005	mg/L	0.10000	ND	97	75-125	1	20	
Cobalt	0.114	0.0100	0.0003	mg/L	0.10000	0.0233	90	75-125	4	20	
Copper	0.0824	0.0250	0.0003	mg/L	0.10000	ND	82	75-125	3	20	
Lead	0.0861	0.0050	0.00007	mg/L	0.10000	0.0015	85	75-125	2	20	
Nickel	0.0914	0.0100	0.0005	mg/L	0.10000	0.0053	86	75-125	2	20	
Selenium	0.123	0.0100	0.0018	mg/L	0.10000	0.0143	109	75-125	2	20	
Silver	0.0888	0.0100	0.0002	mg/L	0.10000	ND	89	75-125	4	20	
Thallium	0.0892	0.0010	0.00005	mg/L	0.10000	0.0003	89	75-125	4	20	
Vanadium	0.102	0.0100	0.0012	mg/L	0.10000	ND	102	75-125	2	20	
Zinc	0.0885	0.0100	0.0012	mg/L	0.10000	0.0046	84	75-125	3	20	
Lithium	0.104	0.250	0.0075	mg/L	0.10000	ND	104	75-125	2	20	J



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

Spike

Source

%REC

Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAJ0310

October 23, 2017

RPD

Analyte	Result	RL	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 7100283 - EPA 3005A											
Post Spike (7100283-PS1)		Sou	ırce: AAJ03	10-01		Prepare	ed: 10/11/	17 Analyze	ed: 10/12/	17	
Antimony	112			ug/L	100.00	0.120	112	80-120			
Arsenic	112			ug/L	100.00	8.10	104	80-120			
Barium	129			ug/L	100.00	22.0	107	80-120			
Beryllium	99.1			ug/L	100.00	0.412	99	80-120			
Cadmium	96.5			ug/L	100.00	0.0841	96	80-120			
Chromium	94.4			ug/L	100.00	0.193	94	80-120			
Cobalt	115			ug/L	100.00	23.3	92	80-120			
Copper	81.0			ug/L	100.00	0.0583	81	80-120			
Lead	86.8			ug/L	100.00	1.48	85	80-120			
Nickel	89.6			ug/L	100.00	5.30	84	80-120			
Selenium	123			ug/L	100.00	14.3	109	80-120			
Silver	89.8			ug/L	100.00	0.0123	90	80-120			
Thallium	91.4			ug/L	100.00	0.281	91	80-120			
Vanadium	102			ug/L	100.00	-0.215	102	80-120			
Zinc	89.7			ug/L	100.00	4.62	85	80-120			
	104			ug/L	100.00	0.486	104	80-120			
	104			ug/L	100.00	0.100	-				
Lithium Batch 7100377 - EPA 3005A Blank (7100377-BLK1)	104			ug/L	100.00			17 Analyze	ed: 10/16/	17	
Batch 7100377 - EPA 3005A	ND	0.0030	0.0006	mg/L	100.00				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1)		0.0030 0.0050	0.0006 0.0005		100.00				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic	ND			mg/L	100.00				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium	ND ND	0.0050	0.0005	mg/L mg/L	100.00				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium	ND ND ND	0.0050 0.0100	0.0005 0.0004	mg/L mg/L mg/L	190.00				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron	ND ND ND	0.0050 0.0100 0.0030	0.0005 0.0004 0.00009	mg/L mg/L mg/L mg/L	190.00				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium	ND ND ND ND	0.0050 0.0100 0.0030 0.0400	0.0005 0.0004 0.00009 0.0060	mg/L mg/L mg/L mg/L mg/L	190.00				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium	ND ND ND ND ND	0.0050 0.0100 0.0030 0.0400 0.0010	0.0005 0.0004 0.00009 0.0060 0.0001	mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium	ND ND ND ND ND ND	0.0050 0.0100 0.0030 0.0400 0.0010 0.500	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404	mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt	ND ND ND ND ND ND ND ND ND	0.0050 0.0100 0.0030 0.0400 0.0010 0.500 0.0100	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404 0.0005	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper	ND	0.0050 0.0100 0.0030 0.0400 0.0010 0.500 0.0100	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404 0.0005 0.0003	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Lead	ND	0.0050 0.0100 0.0030 0.0400 0.0010 0.500 0.0100 0.0100 0.0250	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404 0.0005 0.0003	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Lead Molybdenum	ND N	0.0050 0.0100 0.0030 0.0400 0.0010 0.500 0.0100 0.0100 0.0250 0.0050	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404 0.0005 0.0003 0.0003	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Lead Molybdenum Nickel	ND N	0.0050 0.0100 0.0030 0.0400 0.0010 0.500 0.0100 0.0250 0.0050 0.0100	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404 0.0005 0.0003 0.0003	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony	ND N	0.0050 0.0100 0.0030 0.0400 0.0010 0.500 0.0100 0.0100 0.0250 0.0050 0.0100	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404 0.0005 0.0003 0.0003 0.00007 0.0010 0.0005	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Lead Molybdenum Nickel Selenium Silver	ND N	0.0050 0.0100 0.0030 0.0400 0.0010 0.500 0.0100 0.0100 0.0250 0.0050 0.0100 0.0100	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404 0.0005 0.0003 0.0003 0.00007 0.0010 0.0005 0.0018	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Chromium Cobalt Copper Lead Molybdenum Nickel Selenium Silver Thallium	ND N	0.0050 0.0100 0.0030 0.0400 0.0010 0.500 0.0100 0.0100 0.0250 0.0050 0.0100 0.0100 0.0100	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404 0.0005 0.0003 0.0003 0.00007 0.0010 0.0005 0.0018 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	
Batch 7100377 - EPA 3005A Blank (7100377-BLK1) Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Lead Molybdenum Nickel Selenium	ND N	0.0050 0.0100 0.0030 0.0400 0.0010 0.500 0.0100 0.0100 0.0250 0.0050 0.0100 0.0100 0.0100 0.0100	0.0005 0.0004 0.00009 0.0060 0.0001 0.0404 0.0005 0.0003 0.00007 0.0010 0.0005 0.0018 0.0002 0.00005	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	150.50				ed: 10/16/	17	



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AAJ0310

October 23, 2017

LCS (7100377-BS1)	Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony 0.0994 0.0030 0.0066 mg/L 0.10000 99 80-120 Arsenic 0.0981 0.0050 0.0005 mg/L 0.10000 98 80-120 Arsenic 0.0949 0.0100 0.0004 mg/L 0.10000 95 80-120 Beryllium 0.104 0.0030 0.00009 mg/L 0.10000 95 80-120 Cadmium 0.0995 0.0010 0.0001 mg/L 0.10000 99 80-120 Cadmium 0.0996 0.0100 0.0005 mg/L 0.10000 99 80-120 Cadmium 0.0976 0.0100 0.0005 mg/L 0.10000 99 80-120 Cobalt 0.0983 0.0100 0.0005 mg/L 0.10000 97 80-120 Cobalt 0.0983 0.0090 0.0003 mg/L 0.10000 97 80-120 Copper 0.0974 0.0550 0.0003 mg/L 0.10000 97 80-120 Copper 0.0974 0.0950 0.00005 mg/L 0.10000 97 80-120 Copper 0.0974 0.0050 0.00005 mg/L 0.10000 97 80-120 Copper 0.0960 0.0050 0.00007 mg/L 0.10000 95 80-120 Copper 0.0954 0.00007 mg/L 0.10000 97 80-120 Copper 0.0958 0.00007 mg/L 0.10000 97 80-120 Copper 0.00000 0.00000 0.00000 0.00000 0.0000 97 80-120 Copper 0.00000 0.00000 0.00000 0.00	Batch 7100377 - EPA 3005A											
Arsenic 0.0981 0.0951 0.0005 mg/L 0.10000 98 80-120 Barlum 0.0949 0.0100 0.0004 mg/L 0.10000 95 80-120 Beryllium 0.0104 0.0039 mg/L 0.10000 99 80-120 Cadmium 0.0995 0.0010 0.0001 mg/L 0.10000 99 80-120 Chromium 0.0976 0.0100 0.0005 mg/L 0.10000 98 80-120 Chromium 0.0976 0.0100 0.0005 mg/L 0.10000 98 80-120 Choslit 0.0983 0.0100 0.0003 mg/L 0.10000 98 80-120 Copper 0.0974 0.0250 0.0003 mg/L 0.10000 97 80-120 Lead 0.0960 0.0960 0.0005 mg/L 0.10000 97 80-120 Lead 0.0960 0.0963 0.00007 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.00015 mg/L 0.10000 97 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 95 80-120 Silver 0.0993 0.0100 0.0002 mg/L 0.10000 95 80-120 Thaillium 0.0967 0.0010 0.00015 mg/L 0.10000 97 80-120 Lithium 0.0967 0.0010 0.00015 mg/L 0.10000 97 80-120 Lithium 0.0967 0.0010 0.0012 mg/L 0.10000 97 80-120 Lithium 0.108 0.0500 0.0015 mg/L 0.10000 97 80-120 Lithium 0.108 0.0500 0.0015 mg/L 0.10000 97 80-120 Lithium 0.108 0.0500 0.0015 mg/L 0.10000 97 80-120 Lithium 0.0967 0.0010 0.0012 mg/L 0.10000 97 80-120 Lithium 0.0967 0.0050 0.0015 mg/L 0.10000 97 80-120 Lithium 0.0967 0.0050 0.0005 mg/L 0.10000 97 80-120 Lithium 0.0968 0.0050 0.0015 mg/L 0.10000 ND 98 80-120 Lithium 0.0969 0.0050 0.0005 mg/L 0.10000 ND 98 80-120 Lithium 0.0960 0.0050 mg/L 0.10000 ND 98 80-120 Copper 0.0963 0.0050 0.0005 mg/L 0.10000 ND 98 75-125 Cadmium 0.0964 0.0090 0.0000 mg/L 0.10000 ND 98 75-125 Cadmium 0.0967 0.0090 0.0005 mg/L 0.10000 ND 98 75-125 Chromium 0.0967 0.0090 0.0005 mg/L 0.10000 ND 99 75-125 Copper 0.0962 0.0093 mg/L 0.10000 ND 99 75-125 Chromium 0.0967 0.0090 0.0005 mg/L 0.10000 ND 99 75-125 Copper 0.0962 0.0093 mg/L 0.10000 ND 99 75-125 Copper 0.0962 0.0093 mg/L 0.10000 ND 99 75-125 Copper 0.0962 0.0093 mg/L 0.10000 ND 99 75-125 Collatium 0.0969 0.0096 0.0001 mg/L 0.10000 ND 99 75-125 Collatium 0.0969 0.0096 0.0096 mg/L 0.10000 ND 99 75-125 Collatium 0.0969 0	LCS (7100377-BS1)						Prepare	ed: 10/12/	17 Analyz	ed: 10/16/	17	
Barium 0.0949 0.0100 0.0004 mg/L 0.10000 95 80-120 Beryllium 0.104 0.0030 0.00009 mg/L 0.10000 104 80-120 Cadmium 0.0995 0.0010 0.00001 mg/L 0.10000 98 80-120 Chromium 0.0996 0.0100 0.0005 mg/L 0.10000 98 80-120 Chromium 0.0998 0.0100 0.0003 mg/L 0.10000 98 80-120 Cobalt 0.0983 0.0100 0.0003 mg/L 0.10000 98 80-120 Copper 0.0974 0.0550 0.0003 mg/L 0.10000 97 80-120 Lead 0.09954 0.0100 0.0005 mg/L 0.10000 96 80-120 Silver 0.09959 0.0100 0.0005 mg/L 0.10000 97 80-120 Silver 0.0993 0.0100 0.0005 mg/L 0.10000 97 80-120 Thallium 0.0997 0.0010 0.0005 mg/L 0.10000 99 80-120 Thallium 0.0997 0.0010 0.0002 mg/L 0.10000 99 80-120 Thallium 0.0997 0.0010 0.00012 mg/L 0.10000 97 80-120 Linc 0.0974 0.0100 0.0012 mg/L 0.10000 97 80-120 Linc 0.0976 0.0100 0.0012 mg/L 0.10000 97 80-120 Linc 0.0976 0.0100 0.0012 mg/L 0.10000 97 80-120 Matrix Spike (7100377-MS1) Source: AAJ0310-21 Prepared: 101/12/17 Analyzed: 10/19/17 Antimony 0.0959 0.0150 0.0005 mg/L 0.10000 0.279 100 75-125 Barium 0.156 0.0500 0.0001 mg/L 0.10000 0.0633 93 75-125 Barium 0.0980 0.0030 0.00015 mg/L 0.10000 0.0633 93 75-125 Cadmium 0.0994 0.0090 0.00015 mg/L 0.10000 ND 95 75-125 Cadmium 0.0994 0.0000 0.00011 mg/L 0.10000 ND 95 75-125 Cadmium 0.0994 0.0000 0.00015 mg/L 0.10000 ND 95 75-125 Cobalt 0.0997 0.0000 0.00015 mg/L 0.10000 ND 95 75-125 Cobalt 0.0998 0.0990 0.0000 mg/L 0.10000 ND 95 75-125 Cobalt 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Cobalt 0.0993 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0000 mg/L 0.10000 ND 95 75-125 Selenium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 95 75-125 Selenium 0.	Antimony	0.0994	0.0030	0.0006	mg/L	0.10000		99	80-120			
Beryllium	Arsenic	0.0981	0.0050	0.0005	mg/L	0.10000		98	80-120			
Cadmium 0.0995 0.010 0.0001 mg/L 0.10000 99 80-120 Chromium 0.0976 0.0100 0.0005 mg/L 0.10000 98 80-120 Cobalt 0.0983 0.0100 0.0003 mg/L 0.10000 98 80-120 Copper 0.0974 0.0250 0.0003 mg/L 0.10000 96 80-120 Lead 0.0960 0.0050 0.00005 mg/L 0.10000 96 80-120 Nickel 0.0954 0.0100 0.0005 mg/L 0.10000 95 80-120 Silver 0.0993 0.0100 0.0002 mg/L 0.10000 99 80-120 Thallium 0.0967 0.0101 0.00025 mg/L 0.10000 97 80-120 Vanadium 0.0974 0.0100 0.0012 mg/L 0.10000 97 80-120 Matrix Spike (7100377-MS1) Source: AAJ0310-21 mg/L 0.10000 99 80-1	Barium	0.0949	0.0100	0.0004	mg/L	0.10000		95	80-120			
Chromium 0.0976 0.0100 0.0005 mg/L 0.10000 98 80-120 Cobalt 0.0983 0.0100 0.0003 mg/L 0.10000 98 80-120 Copper 0.0974 0.0250 0.00007 mg/L 0.10000 96 80-120 Lead 0.0964 0.0100 0.0005 mg/L 0.10000 95 80-120 Nickel 0.0954 0.0100 0.0018 mg/L 0.10000 95 80-120 Selenium 0.103 0.0100 0.0002 mg/L 0.10000 97 80-120 Thallium 0.0967 0.0100 0.0002 mg/L 0.10000 97 80-120 Zinc 0.0976 0.0100 0.0012 mg/L 0.10000 97 80-120 Zinc 0.0976 0.0100 0.0012 mg/L 0.10000 97 80-120 Matrix Spike (7100377-MS1) Source: AAJ03101-2: Prepared: 2000000000000000000000000000000000000	Beryllium	0.104	0.0030	0.00009	mg/L	0.10000		104	80-120			
Cobalt 0.0983 0.0100 0.0003 mg/L 0.10000 98 80-120 Copper 0.0974 0.0250 0.0003 mg/L 0.10000 97 80-120 Nickel 0.0960 0.0050 0.00007 mg/L 0.10000 96 80-120 Nickel 0.0954 0.0100 0.0005 mg/L 0.10000 95 80-120 Selenium 0.103 0.0100 0.0005 mg/L 0.10000 99 80-120 Silver 0.0993 0.0100 0.00005 mg/L 0.10000 97 80-120 Vanadium 0.0974 0.0100 0.0012 mg/L 0.10000 97 80-120 Zinc 0.0976 0.0100 0.0012 mg/L 0.10000 98 80-120 Matrix Spike (7100377-MS1) Source: AAJ0310-21 Prepared: 10/12/17 Analyzed: 10/19/17 Antimony 0.0959 0.0150 0.0005 mg/L 0.10000 ND 96 75-125 </td <td>Cadmium</td> <td>0.0995</td> <td>0.0010</td> <td>0.0001</td> <td>mg/L</td> <td>0.10000</td> <td></td> <td>99</td> <td>80-120</td> <td></td> <td></td> <td></td>	Cadmium	0.0995	0.0010	0.0001	mg/L	0.10000		99	80-120			
Copper 0.0974 0.0250 0.0003 mg/L 0.10000 97 80-120 Lead 0.0964 0.0050 0.00007 mg/L 0.10000 96 80-120 Nickel 0.0954 0.0100 0.0005 mg/L 0.10000 95 80-120 Selenium 0.103 0.0100 0.0002 mg/L 0.10000 99 80-120 Silver 0.0993 0.0100 0.0002 mg/L 0.10000 97 80-120 Thallium 0.0967 0.0010 0.00025 mg/L 0.10000 97 80-120 Vanadium 0.0976 0.0100 0.0012 mg/L 0.10000 97 80-120 Lithium 0.108 0.0500 0.0012 mg/L 0.10000 98 80-120 Matrix Spike (7100377-MS1) Source: AJJ0310-21 Prepared: 0.10000 98 80-120 Matrix Spike (7100377-MS1) Source: AJJ0310-21 mg/L 0.10000 ND 96 75-125	Chromium	0.0976	0.0100	0.0005	mg/L	0.10000		98	80-120			
Lead	Cobalt	0.0983	0.0100	0.0003	mg/L	0.10000		98	80-120			
Nickel 0.0954 0.0100 0.0005 mg/L 0.10000 95 80-120 Selenium 0.103 0.0100 0.0018 mg/L 0.10000 95 80-120 Selver 0.0993 0.0100 0.0002 mg/L 0.10000 99 80-120 Thallium 0.0967 0.0010 0.00005 mg/L 0.10000 97 80-120 Vanadium 0.0974 0.0100 0.0012 mg/L 0.10000 97 80-120 Vanadium 0.0974 0.0100 0.0012 mg/L 0.10000 97 80-120 Zinc 0.0976 0.0100 0.0012 mg/L 0.10000 97 80-120 Lithium 0.108 0.0500 0.0015 mg/L 0.10000 98 80-120 Matrix Spike (7100377-MS1) Source: AAJ0310-21 Prepared: 10/12/17 Analyzed: 10/19/17 Antimony 0.0959 0.0150 0.0030 mg/L 0.10000 ND 96 75-125 Arsenic 0.379 0.0050 0.0005 mg/L 0.10000 0.279 100 75-125 Barium 0.156 0.0500 0.0021 mg/L 0.10000 0.0633 93 75-125 Beryllium 0.0980 0.0030 0.00009 mg/L 0.10000 ND 98 75-125 Cadmium 0.0943 0.0010 0.0001 mg/L 0.10000 ND 98 75-125 Chromium 0.0947 0.0100 0.0005 mg/L 0.10000 ND 94 75-125 Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 ND 95 75-125 Lead 0.0894 0.0932 0.0250 0.0003 mg/L 0.10000 0.0007 92 75-125 Selenium 0.105 0.0100 0.0001 mg/L 0.10000 ND 90 75-125 Selenium 0.105 0.0100 0.0001 mg/L 0.10000 ND 90 75-125 Selenium 0.105 0.0100 0.0001 mg/L 0.10000 ND 90 75-125 Selenium 0.0943 0.0100 0.0005 mg/L 0.10000 0.0007 92 75-125 Selenium 0.0934 0.0500 0.0005 mg/L 0.10000 ND 93 75-125 Selenium 0.105 0.0100 0.0005 mg/L 0.10000 ND 90 75-125 Selenium 0.105 0.0100 0.0005 mg/L 0.10000 ND 90 75-125 Selenium 0.0943 0.0100 0.0005 mg/L 0.10000 ND 90 75-125 Selenium 0.0943 0.0100 0.0005 mg/L 0.10000 ND 90 75-125 Selenium 0.0943 0.0100 0.0005 mg/L 0.10000 ND 90 75-125 Selenium 0.0943 0.0100 0.0005 mg/L 0.10000 ND 90 75-125 Selenium 0.0943 0.0100 0.00012 mg/L 0.10000 ND 90 75-125 Selenium 0.0943 0.0100 0.00012 mg/L 0.10000 ND 90 75-125 Selenium 0.0943 0.0100 0.00012 mg/L 0.10000 ND 90 75-125	Copper	0.0974	0.0250	0.0003	mg/L	0.10000		97	80-120			
Selenium 0.103 0.0100 0.0018 mg/L 0.10000 103 80-120 Silver 0.0993 0.0100 0.0002 mg/L 0.10000 99 80-120 Thallium 0.0967 0.0100 0.0005 mg/L 0.10000 97 80-120 Vanadium 0.0974 0.0100 0.0012 mg/L 0.10000 97 80-120 Lithium 0.0976 0.0100 0.0012 mg/L 0.10000 98 80-120 Lithium 0.108 0.0500 0.0015 mg/L 0.10000 98 80-120 Matrix Spike (7100377-MS1) Source: AAJ0310-21 Prepared: 10/12/17 Analyzed: 10/19/17 Antimony 0.0959 0.0150 0.0030 mg/L 0.10000 ND 96 75-125 Arsenic 0.379 0.050 0.0005 mg/L 0.10000 ND 96 75-125 Barium 0.156 0.050 0.0021 mg/L 0.10000 ND	Lead	0.0960	0.0050	0.00007	mg/L	0.10000		96	80-120			
Silver 0.0993 0.0100 0.0002 mg/L 0.10000 99 80-120 Thallium 0.0967 0.0010 0.00005 mg/L 0.10000 97 80-120 Vanadium 0.0974 0.0100 0.0012 mg/L 0.10000 97 80-120 Zinc 0.0976 0.0100 0.0012 mg/L 0.10000 98 80-120 Lithium 0.108 0.0500 0.0015 mg/L 0.10000 108 80-120 Matrix Spike (7100377-MS1) Source: AAJ0310-21 Prepared: 10/12/17 Analyzed: 10/19/17 Antimony 0.0959 0.0150 0.0030 mg/L 0.10000 ND 96 75-125 Assenic 0.379 0.0050 0.0001 mg/L 0.10000 0.0633 93 75-125 Beryllium 0.156 0.0500 0.0001 mg/L 0.10000 ND 98 75-125 Cadmium 0.0943 0.0010 0.0001 mg/L 0.100	Nickel	0.0954	0.0100	0.0005	mg/L	0.10000		95	80-120			
Thallium 0.0967 0.0010 0.0005 mg/L 0.10000 97 80-120 Vanadium 0.0974 0.0100 0.0012 mg/L 0.10000 97 80-120 Zinc 0.0976 0.0100 0.0012 mg/L 0.10000 98 80-120 Lithium 0.108 0.0500 0.0015 mg/L 0.10000 108 80-120 Matrix Spike (7100377-MS1) Source: AAJ0310-21 Prepared: 10/12/17 Analyzed: 10/19/17 Antimony 0.0959 0.0150 0.0030 mg/L 0.10000 ND 96 75-125 Arsenic 0.379 0.0050 0.0001 mg/L 0.10000 ND 96 75-125 Beryllium 0.156 0.0500 0.0021 mg/L 0.10000 ND 98 75-125 Beryllium 0.0980 0.0030 0.00009 mg/L 0.10000 ND 94 75-125 Chromium 0.0947 0.0100 0.0001 mg/L <td>Selenium</td> <td>0.103</td> <td>0.0100</td> <td>0.0018</td> <td>mg/L</td> <td>0.10000</td> <td></td> <td>103</td> <td>80-120</td> <td></td> <td></td> <td></td>	Selenium	0.103	0.0100	0.0018	mg/L	0.10000		103	80-120			
Vanadium 0.0974 0.0100 0.0012 mg/L 0.10000 97 80-120 Zinc 0.0976 0.0100 0.0012 mg/L 0.10000 98 80-120 Lithium 0.108 0.0500 0.0015 mg/L 0.10000 108 80-120 Matrix Spike (7100377-MS1) Source: AAJ0310-21 Prepared: 10/12/17 Analyzed: 10/19/17 Antimony 0.0959 0.0150 0.0005 mg/L 0.10000 ND 96 75-125 Arsenic 0.379 0.0050 0.0005 mg/L 0.10000 0.0633 93 75-125 Barium 0.156 0.0500 0.0021 mg/L 0.10000 ND 98 75-125 Beryllium 0.0980 0.0030 0.00009 mg/L 0.10000 ND 98 75-125 Cadmium 0.0943 0.0010 0.0005 mg/L 0.10000 ND 95 75-125 Cobalt 0.0937 0.0100 0	Silver	0.0993	0.0100	0.0002	mg/L	0.10000		99	80-120			
Zinc 0.0976 0.0100 0.0012 mg/L 0.10000 98 80-120	Thallium	0.0967	0.0010	0.00005	mg/L	0.10000		97	80-120			
Lithium 0.108 0.0500 0.0015 mg/L 0.10000 108 80-120 Matrix Spike (7100377-MS1) Source: AAJ0310-21 Prepared: 10/12/17 Analyzed: 10/19/17 Antimony 0.0959 0.0150 0.0030 mg/L 0.10000 ND 96 75-125 Arsenic 0.379 0.0050 0.0001 mg/L 0.10000 0.0239 93 75-125 Barium 0.156 0.0500 0.0021 mg/L 0.10000 ND 98 75-125 Beryllium 0.0980 0.0030 0.00009 mg/L 0.10000 ND 98 75-125 Cadmium 0.0943 0.0010 0.0001 mg/L 0.10000 ND 98 75-125 Cadmium 0.0947 0.0100 0.0005 mg/L 0.10000 ND 95 75-125 Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 0.0015 92 75-125 Copper 0.0922	Vanadium	0.0974	0.0100	0.0012	mg/L	0.10000		97	80-120			
Matrix Spike (7100377-MS1) Source: AAJ0310-21 Prepared: 10/12/17 Analyzed: 10/19/17 Antimony 0.0959 0.0150 0.0030 mg/L 0.10000 ND 96 75-125 Arsenic 0.379 0.0050 0.0001 mg/L 0.10000 0.279 100 75-125 Barium 0.156 0.0500 0.0021 mg/L 0.10000 ND 98 75-125 Beryllium 0.0980 0.0030 0.00009 mg/L 0.10000 ND 98 75-125 Cadmium 0.0943 0.0010 0.0001 mg/L 0.10000 ND 98 75-125 Chromium 0.0947 0.0100 0.0005 mg/L 0.10000 ND 95 75-125 Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 0.0015 92 75-125 Copper 0.0922 0.0250 0.0003 mg/L 0.10000 0.00007 89 75-125 Selenium 0.105	Zinc	0.0976	0.0100	0.0012	mg/L	0.10000		98	80-120			
Antimony 0.0959 0.0150 0.0030 mg/L 0.10000 ND 96 75-125 Arsenic 0.379 0.0050 0.0005 mg/L 0.10000 0.279 100 75-125 Barium 0.156 0.0500 0.0021 mg/L 0.10000 0.0633 93 75-125 Beryllium 0.0980 0.0030 0.00009 mg/L 0.10000 ND 98 75-125 Cadmium 0.0943 0.0010 0.0001 mg/L 0.10000 ND 94 75-125 Chromium 0.0947 0.0100 0.0005 mg/L 0.10000 ND 95 75-125 Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 0.0015 92 75-125 Copper 0.0922 0.0250 0.0003 mg/L 0.10000 0.0007 89 75-125 Lead 0.0894 0.0500 0.0005 mg/L 0.10000 0.0006 90 75-125	Lithium	0.108	0.0500	0.0015	mg/L	0.10000		108	80-120			
Arsenic 0.379 0.0050 0.0005 mg/L 0.10000 0.279 100 75-125 Barium 0.156 0.0500 0.0021 mg/L 0.10000 0.0633 93 75-125 Beryllium 0.0980 0.0030 0.00009 mg/L 0.10000 ND 98 75-125 Cadmium 0.0943 0.0010 0.0001 mg/L 0.10000 ND 94 75-125 Chromium 0.0947 0.0100 0.0005 mg/L 0.10000 ND 95 75-125 Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 0.0015 92 75-125 Copper 0.0922 0.0250 0.0003 mg/L 0.10000 0.0007 89 75-125 Lead 0.0894 0.0050 0.00005 mg/L 0.10000 0.0006 90 75-125 Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 93 75-125	Matrix Spike (7100377-MS1)		Sou	urce: AAJ031	10-21		Prepare	ed: 10/12/	17 Analyz	ed: 10/19/	17	
Barium 0.156 0.0500 0.0021 mg/L 0.10000 0.0633 93 75-125 Beryllium 0.0980 0.0030 0.00009 mg/L 0.10000 ND 98 75-125 Cadmium 0.0943 0.0010 0.0001 mg/L 0.10000 ND 94 75-125 Chromium 0.0947 0.0100 0.0005 mg/L 0.10000 ND 95 75-125 Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 0.0015 92 75-125 Copper 0.0922 0.0250 0.0003 mg/L 0.10000 0.0007 89 75-125 Lead 0.0894 0.0050 0.00007 mg/L 0.10000 0.0006 90 75-125 Nickel 0.0903 0.0100 0.0005 mg/L 0.10000 ND 105 75-125 Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 93 75-125 Thallium 0.0922 0.0010 0.00005 mg/L 0.10000 </td <td>Antimony</td> <td>0.0959</td> <td>0.0150</td> <td>0.0030</td> <td>mg/L</td> <td>0.10000</td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td>	Antimony	0.0959	0.0150	0.0030	mg/L	0.10000	•					
Beryllium 0.0980 0.0030 0.00009 mg/L 0.10000 ND 98 75-125 Cadmium 0.0943 0.0010 0.0001 mg/L 0.10000 ND 94 75-125 Chromium 0.0947 0.0100 0.0005 mg/L 0.10000 ND 95 75-125 Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 0.0015 92 75-125 Copper 0.0922 0.0250 0.0003 mg/L 0.10000 0.0007 92 75-125 Lead 0.0894 0.0050 0.00007 mg/L 0.10000 0.00007 89 75-125 Nickel 0.0903 0.0100 0.0005 mg/L 0.10000 0.0006 90 75-125 Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 93 75-125 Silver 0.0934 0.0500 0.0012 mg/L 0.10000 ND 93 75-125 </td <td>Arsenic</td> <td>0.379</td> <td>0.0050</td> <td>0.0005</td> <td>mg/L</td> <td>0.10000</td> <td>0.279</td> <td>100</td> <td>75-125</td> <td></td> <td></td> <td></td>	Arsenic	0.379	0.0050	0.0005	mg/L	0.10000	0.279	100	75-125			
Cadmium 0.0943 0.0010 0.0001 mg/L 0.10000 ND 94 75-125 Chromium 0.0947 0.0100 0.0005 mg/L 0.10000 ND 95 75-125 Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 0.0015 92 75-125 Copper 0.0922 0.0250 0.0003 mg/L 0.10000 0.0007 92 75-125 Lead 0.0894 0.0050 0.00007 mg/L 0.10000 0.00007 89 75-125 Nickel 0.0903 0.0100 0.0005 mg/L 0.10000 0.0006 90 75-125 Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 105 75-125 Silver 0.0934 0.0500 0.0012 mg/L 0.10000 ND 93 75-125 Thallium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 <td>Barium</td> <td>0.156</td> <td>0.0500</td> <td>0.0021</td> <td>mg/L</td> <td></td> <td>0.0633</td> <td>93</td> <td>75-125</td> <td></td> <td></td> <td></td>	Barium	0.156	0.0500	0.0021	mg/L		0.0633	93	75-125			
Chromium 0.0947 0.0100 0.0005 mg/L 0.10000 ND 95 75-125 Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 0.0015 92 75-125 Copper 0.0922 0.0250 0.0003 mg/L 0.10000 0.0007 92 75-125 Lead 0.0894 0.0050 0.00007 mg/L 0.10000 0.00007 89 75-125 Nickel 0.0903 0.0100 0.0005 mg/L 0.10000 0.0006 90 75-125 Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 105 75-125 Silver 0.0934 0.0500 0.0012 mg/L 0.10000 ND 93 75-125 Thallium 0.0922 0.0010 0.0005 mg/L 0.10000 ND 94 75-125 Vanadium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 </td <td>Beryllium</td> <td>0.0980</td> <td>0.0030</td> <td>0.00009</td> <td>mg/L</td> <td>0.10000</td> <td>ND</td> <td>98</td> <td>75-125</td> <td></td> <td></td> <td></td>	Beryllium	0.0980	0.0030	0.00009	mg/L	0.10000	ND	98	75-125			
Cobalt 0.0937 0.0100 0.0003 mg/L 0.10000 0.0015 92 75-125 Copper 0.0922 0.0250 0.0003 mg/L 0.10000 0.0007 92 75-125 Lead 0.0894 0.0050 0.00007 mg/L 0.10000 0.00007 89 75-125 Nickel 0.0903 0.0100 0.0005 mg/L 0.10000 0.0006 90 75-125 Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 105 75-125 Silver 0.0934 0.0500 0.0012 mg/L 0.10000 ND 93 75-125 Thallium 0.0922 0.0010 0.00005 mg/L 0.10000 ND 94 75-125 Vanadium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 Zinc 0.0937 0.0100 0.0012 mg/L 0.10000 0.0013 92 75-125<	Cadmium	0.0943	0.0010	0.0001	mg/L	0.10000	ND	94	75-125			
Copper 0.0922 0.0250 0.0003 mg/L 0.10000 0.0007 92 75-125 Lead 0.0894 0.0050 0.00007 mg/L 0.10000 0.00007 89 75-125 Nickel 0.0903 0.0100 0.0005 mg/L 0.10000 0.0006 90 75-125 Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 105 75-125 Silver 0.0934 0.0500 0.0012 mg/L 0.10000 ND 93 75-125 Thallium 0.0922 0.0010 0.00005 mg/L 0.10000 0.0003 92 75-125 Vanadium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 Zinc 0.0937 0.0100 0.0012 mg/L 0.10000 0.0013 92 75-125	Chromium	0.0947	0.0100	0.0005	mg/L	0.10000	ND	95	75-125			
Lead 0.0894 0.0050 0.00007 mg/L 0.10000 0.00007 89 75-125 Nickel 0.0903 0.0100 0.0005 mg/L 0.10000 0.0006 90 75-125 Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 105 75-125 Silver 0.0934 0.0500 0.0012 mg/L 0.10000 ND 93 75-125 Thallium 0.0922 0.0010 0.00005 mg/L 0.10000 0.0003 92 75-125 Vanadium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 Zinc 0.0937 0.0100 0.0012 mg/L 0.10000 0.0013 92 75-125	Cobalt	0.0937	0.0100	0.0003	mg/L	0.10000	0.0015	92	75-125			
Lead 0.0894 0.0950 0.00007 mg/L 0.10000 0.00007 89 75-125 Nickel 0.0903 0.0100 0.0005 mg/L 0.10000 0.0006 90 75-125 Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 105 75-125 Silver 0.0934 0.0500 0.0012 mg/L 0.10000 ND 93 75-125 Thallium 0.0922 0.0010 0.00005 mg/L 0.10000 0.0003 92 75-125 Vanadium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 Zinc 0.0937 0.0100 0.0012 mg/L 0.10000 0.0013 92 75-125	Copper	0.0922	0.0250	0.0003	mg/L	0.10000	0.0007	92	75-125			
Selenium 0.105 0.0100 0.0018 mg/L 0.10000 ND 105 75-125 Silver 0.0934 0.0500 0.0012 mg/L 0.10000 ND 93 75-125 Thallium 0.0922 0.0010 0.00005 mg/L 0.10000 0.0003 92 75-125 Vanadium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 Zinc 0.0937 0.0100 0.0012 mg/L 0.10000 0.0013 92 75-125	Lead	0.0894	0.0050	0.00007	mg/L	0.10000	0.00007	89	75-125			
Silver 0.0934 0.0500 0.0012 mg/L 0.10000 ND 93 75-125 Thallium 0.0922 0.0010 0.00005 mg/L 0.10000 0.0003 92 75-125 Vanadium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 Zinc 0.0937 0.0100 0.0012 mg/L 0.10000 0.0013 92 75-125	Nickel	0.0903	0.0100	0.0005	mg/L	0.10000	0.0006	90	75-125			
Thallium 0.0922 0.0010 0.00005 mg/L 0.10000 0.0003 92 75-125 Vanadium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 Zinc 0.0937 0.0100 0.0012 mg/L 0.10000 0.0013 92 75-125	Selenium	0.105	0.0100	0.0018	mg/L	0.10000	ND	105	75-125			
Vanadium 0.0943 0.0100 0.0012 mg/L 0.10000 ND 94 75-125 Zinc 0.0937 0.0100 0.0012 mg/L 0.10000 0.0013 92 75-125	Silver	0.0934	0.0500	0.0012	mg/L	0.10000	ND	93	75-125			
Zinc 0.0937 0.0100 0.0012 mg/L 0.10000 0.0013 92 75-125	Thallium	0.0922	0.0010	0.00005	mg/L	0.10000	0.0003	92	75-125			
	Vanadium	0.0943	0.0100	0.0012	mg/L	0.10000	ND	94	75-125			
·	Zinc	0.0937	0.0100	0.0012	mg/L	0.10000	0.0013	92	75-125			
· · · · · · · · · · · · · · · · · · ·	Lithium	0.126	0.0500	0.0015	mg/L	0.10000	0.0256	100	75-125			



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

Report No.: AAJ0310

October 23, 2017

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100377 - EPA 3005A											
Matrix Spike Dup (7100377-MSD1)		Sou	urce: AAJ03	10-21		Prepare	ed: 10/12/	17 Analyz	ed: 10/19/	/17	
Antimony	0.0992	0.0150	0.0030	mg/L	0.10000	ND	99	75-125	3	20	
Arsenic	0.388	0.0050	0.0005	mg/L	0.10000	0.279	109	75-125	2	20	
Barium	0.162	0.0500	0.0021	mg/L	0.10000	0.0633	99	75-125	4	20	
Beryllium	0.0939	0.0030	0.00009	mg/L	0.10000	ND	94	75-125	4	20	
Cadmium	0.0972	0.0010	0.0001	mg/L	0.10000	ND	97	75-125	3	20	
Chromium	0.0938	0.0100	0.0005	mg/L	0.10000	ND	94	75-125	1	20	
Cobalt	0.0914	0.0100	0.0003	mg/L	0.10000	0.0015	90	75-125	2	20	
Copper	0.0913	0.0250	0.0003	mg/L	0.10000	0.0007	91	75-125	1	20	
Lead	0.0931	0.0050	0.00007	mg/L	0.10000	0.00007	93	75-125	4	20	
Nickel	0.0917	0.0100	0.0005	mg/L	0.10000	0.0006	91	75-125	2	20	
Selenium	0.102	0.0100	0.0018	mg/L	0.10000	ND	102	75-125	3	20	
Silver	0.0964	0.0500	0.0012	mg/L	0.10000	ND	96	75-125	3	20	
Thallium	0.0961	0.0010	0.00005	mg/L	0.10000	0.0003	96	75-125	4	20	
Vanadium	0.0953	0.0100	0.0012	mg/L	0.10000	ND	95	75-125	1	20	
Zinc	0.0973	0.0100	0.0012	mg/L	0.10000	0.0013	96	75-125	4	20	
Lithium	0.125	0.0500	0.0015	mg/L	0.10000	0.0256	99	75-125	0.5	20	
Post Spike (7100377-PS1)		Sou	urce: AAJ03	10-21		Prepare	ed: 10/12/	17 Analyz	ed: 10/19/	/17	
Antimony	98.8			ug/L	100.00	0.258	99	80-120			
Arsenic	374			ug/L	100.00	279	95	80-120			
Barium	162			ug/L	100.00	63.3	99	80-120			
Beryllium	94.8			ug/L	100.00	0.0354	95	80-120			
Cadmium	100			ug/L	100.00	-0.0220	100	80-120			
Chromium	96.6			ug/L	100.00	0.207	96	80-120			
Cobalt	94.9			ug/L	100.00	1.50	93	80-120			
Copper	92.7			ug/L	100.00	0.677	92	80-120			
Lead	93.3			ug/L	100.00	0.0743	93	80-120			
Nickel	91.3			ug/L	100.00	0.639	91	80-120			
Selenium	105			ug/L	100.00	-1.29	105	80-120			
Silver	98.1			ug/L	100.00	0.0013	98	80-120			
Thallium	95.5			ug/L	100.00	0.276	95	80-120			
Vanadium	97.9			ug/L	100.00	-1.98	98	80-120			
Zinc	94.0			ug/L	100.00	1.34	93	80-120			
Lithium	127			ug/L	100.00	25.6	101	80-120			



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 23, 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).
 - **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.



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 23, 2017

Report Notes

Per consultant 10/9/2017, metals parameters should be boron and calcium; not barium that is noted on COC. BMcD

Pace Analytical * 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

5 - NaOH/ZnAc, ≤6°C 7 - ≤6°C not frozen 6 - Na₂S₂O₃, ≤6°C 2 - H₂SO₄, ≤6°C 3 - HNO₃ REMARKS/ADDITIONAL INFORMATION 4450310 4 - NaOH, ≤6°C P - PRODUCT PRESERVATION 1 - HCI, ≤6°C SL - SLUDGE L- LIQUID SD - SOUD S - SOIL A - AIR FOR LAB USE ONL *MATRIX CODES: SW - SURFACE WATER DW - DRINKING WATER GW - GROUNDWATER ST - STORM WATER **NW - WASTEWATER** A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE Entered into LIMS S - STERILE O - OTHER V - VOA VIAL P - PLASTIC W - WATER racking # LAB# 7 23 BAL - 0 Z D Z M W K 3 Cr K OTHER DATE/TIME DATE/TIME ANALYSIS REQUESTED ERM (EPA 300.0 & SM 2540C) 0 CI, F, 50, & TDS RELINQUISHED BY: Ba & Ca RELINQUISHED BY ۵. Metals - (Part 257 Appendix III) EPA 6020; CONTAINER TYPE: PRESERVATION: # of OOZ-4-ZEES 2 2 2 2 2 2 laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGWC-16 HGWC-15 HGWC-17 HGWC-18 HGWC-14 DUP-2 FERB-2 Maria Padilla FB-2 10/4/2017 - 12:00 DATE/TIME: DATE/TIME: Plant Hammond - AP 1&2 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER SCR # Od ö × × × × × 9 2 4 8 × × × 446 H. B OOEa MATRIX CODE H.Beaugh REQUESTED COMPLETION DATE: SAMPLED BY AND TITLE W.Virgo M.Thomas 377. H.Beaug ≥ ₹ 3 ≥ 3 3 ≥ 3 42 Inverness Center Parkway aum Petty Collection PROJECT NAME/STATE 09:42 11:00 09:35 10:35 10:30 9:25 9:30 Birmingham, AL 35242 VED BY (AB EIVED BY CLIENT NAME Georgia Power 205-992-5417 REPORT TO: PROJECT #: Collection DATE 10/04/17 10/04/17 10/04/17 10/04/17 10/04/17 10/04/17 10/04/17 10/04/17 M.Thomas

-9 • PAGE:

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CHAIN OF CUSTODY RECORD

Pace Analytical

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PAGE:

5 - NaOH/ZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - <6°C not frozen AAC036 REMARKS/ADDITIONAL INFORMATION 2 - H₂SO₄, ≤6°C 4 - NaOH, <6°C P - PRODUCT 1 - HCI, ≤6°C PRESERVATION SL - SLUDGE L. LIQUID SD - SOLID 3 - HNO3 S - SOIL A - AIR FOR LAB USE ONLY *MATRIX CODES: DRINKING WATER SURFACE WATER GW - GROUNDWATER ST - STORM WATER **NW - WASTEWATER** A - AMBER GLASS G - CLEAR GLASS Entered into LIMS CONTAINER TYPE S - STERILE O - OTHER V - VOA VIAL P - PLASTIC W - WATER racking #: LAB# - MS 6 は変変で Z D Z B W C **-** 0 BAL ES 7. DATE/TIME DATE/TIME CLIENT ANALYSIS REQUEST ۵ RELINGUISHED BY: EPA 300.0 & SM 2540C) ۵ CI, F, 50, & TDS Ba & Ca RELINQUISHED BY ۵ Metals - (Part 257 Appendix III) EPA 6020; CONTAINER TYPE: PRESERVATION: jo# 2 7 2 2 2 2 OOZH A-ZEKS 2 2 2 2 2 2 laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGWC-12 HGWC-10 HGWC-11 HGWA-6 HGWC-9 HGWA-1 HGWA-2 HGWA-3 HGWA-5 HGWC-8 HGWA-4 HGWC-7 Maria Padilla DATE/TIME: 10/3/17 - 15:30 DATE/TIME: Plant Hammond - AP 1&2 # Od SS CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER S × × × × × × × × × × 0 K K B F.B. 0020 Ice: No MATRIX CODE H.Beaugh REQUESTED COMPLETION DATE: SAMPLED BY AND TITLE W.Virgo M.Thomas 3777 H.Beaug 3 ≥ ≥ ≥ ≥ ≥ 3 ₹ ≥ 3 3 ≥ 42 Inverness Center Parkway Laurn Petty Collection PROJECT NAME/STATE 12:15 13:08 13:40 14:17 10:30 10:25 11:25 11:58 09:55 11:57 13:47 14:30 Birmingham, AL 35242 IVED BY (AB M.Thomas 31
RECEIVED BY: CLIENT NAME Georgia Power 205-992-5417 REPORT TO: PROJECT #: Collection DATE 10/03/17 10/03/17 10/03/17 10/03/17 10/03/17 10/03/17 10/03/17 10/03/17 10/03/17 10/03/17 10/03/17 10/03/17 Page 39 of 42

2017 10 03 Hammond COC & Sample Management Form.xlsx

NA

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CHAIN OF CUSTODY RECORD

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PAGE:

Collection Col	CHON IC C
NABERPITAX NUMBER: Presenvence	P-PLASIIC
CC: Maria Padilia CC: Heath McCorkle O D D D D D D D D D	A - AMBER GLASS
OC: Maria Padilla OC: Maria Padilla OC: Maria Padilla OC: Maria Padilla OC: Heath McCorkle OC # Heath McCorkle OC # OC #	G - CLEAR GLASS V - VOA VIAL S - STERILE
Jaburch@Southernco.com	D O - OTHER 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen
COR CONSection MATRIX C R SAMPLE IDENTIFICATION 15:00	M M CONVINC WATER CODES.
15:00 W X FERB-1 2 1 1 1 1 1 1 1 1	WW - WASTEWATER SW - GROUNDWATER SW - GROUNDWATER SW - GROUNDWATER SW - GROON WATER
15:00 W X HGWC-13 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ST - STORM WATER L - LIQUID W - WATER P - PRODUCT
15:10 W X FERB-1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	REMARKS/ADDITIONAL INFORMATION
15.15 W X FERB-1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	46 22
	14 23
	47 24
	J. T.
ND TITLE W.Virgo 1977 DATE/TIME: RELINGUISHED BY: (COV)	١,
DATE/TIME: RELINQUISHED'BY:	
PANES HAWS PATERINE 1/7 1600 SAMPLE SHIPPED VIA COURSE CUENT OTHER FS	OTHER FS
S secked: The No NA Test No NA Min (/ / Max Mind Broken Not Present A Toolers	ens Oppder ID

Sample Condition Upon Receipt Project # PA) Client Name: (9-Courier: Fed Ex UPS USPS Client Commercial Pace Other Proj. Due Date: Tracking #: Proj. Name: Bubble Bags None Other Packing Material: Bubble Wrap Samples on ice, cooling process has begun Type of Ice: (Wet Blue None Thermometer Used Date and Initials of person examining Biological Tissue is Frozen: Yes No contents: 10/6/17 (24 Cooler Temperature Comments: Temp should be above freezing to 6°C TYPES ONO ONA 1. Chain of Custody Present: Yes No □N/A 2. Chain of Custody Filled Out: TYES NO DNA 3. Chain of Custody Relinquished: EYes ONO ONA 4. Sampler Name & Signature on COC: ☐Yes ☐No □N/A 5. Samples Arrived within Hold Time: ☐Yes ☑No □N/A 6. Short Hold Time Analysis (<72hr): □N/A 7. ☐Yes ☑No Rush Turn Around Time Requested: ☐Yes □No □N/A Sufficient Volume: ☑Yes □No □N/A Correct Containers Used: ☐Yes ☐No □N/A -Pace Containers Used: □Yes □No □N/A 10. Containers Intact: □Yes □No Filtered volume received for Dissolved tests ENTA 11 TYes DNo DNA 12. Sample Labels match COC: G-W -Includes date/time/ID/Analysis All containers needing preservation have been checked. □Yes □No □N/A 13. All containers needing preservation are found to be in Yes No NA compliance with EPA recommendation. Lot # of added Initial when □Yes □₩9 completed preservative exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) □Yes □No □N/A 14. Samples checked for dechlorination: □Yes □No ĐNA 15. Headspace in VOA Vials (>6mm): □Yes □No ☑NA 16. Trip Blank Present: ☐Yes ☐No ☑N/A Trip Blank Custody Seals Present Pace Trip Blank Lot # (if purchased): Field Data Required? Client Notification/ Resolution:

Client Notification/ Resolution:

Person Contacted:

Comments/ Resolution:

Project Manager Review:

Field Data Required?

Y / N

Date/Time:

Date/Tim

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,



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

LOG-IN CHECKLIST Printed: 10/23/2017 2:43:07PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project:CCR EventWork Order:AAJ0310Date Received:10/06/17 16:00Logged In By:Charles Hawks

OBSERVATIONS

#Samples: 24 **#Containers:** 48

Minimum Temp(C): 1.1 Maximum Temp(C): 1.1 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:

Per consultant 10/9/2017, metals parameters should be boron and calcium; not barium that is noted on COC. BMcD



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: AZG0254

July 21, 2016

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, Inc.

All test results relate only to the samples analyzed.



Georgia Power 2480 Maner Road Atlanta GA, 30339

PACE ANALYTICAL SERVICES, INC.

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

Attention: Mr. Joju Abraham July 21, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-4	AZG0254-01	Ground Water	07/11/16 15:09	07/12/16 08:40
HGWA-5	AZG0254-02	Ground Water	07/11/16 15:41	07/12/16 08:40
HGWA-6	AZG0254-03	Ground Water	07/11/16 14:30	07/12/16 08:40
HGWA-1	AZG0254-04	Ground Water	07/11/16 15:42	07/12/16 08:40
HGWA-2	AZG0254-05	Ground Water	07/11/16 16:25	07/12/16 08:40



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

Report No.: AZG0254
Client ID: HGWA-4

Date/Time Sampled: 7/11/2016 3:09:00PM

Matrix: Ground Water

ect: CCR Event

July 21, 2016

Project: CCR Event

Lab Number ID: AZG0254-01

Date/Time Received: 7/12/2016 8:40:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	266	25	10	mg/L	SM 2540 C		1	07/18/16 13:50	07/18/16 13:50	6070364	JPT
Inorganic Anions											
Chloride	5.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/14/16 11:07	07/14/16 18:58	6070308	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	07/14/16 11:07	07/14/16 18:58	6070308	RLC
Sulfate	3.7	1.0	0.05	mg/L	EPA 300.0		1	07/14/16 11:07	07/14/16 18:58	6070308	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Barium	0.0309	0.0100	0.0003	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Boron	0.0175	0.100	0.0044	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Calcium	73.0	10.0	0.251	mg/L	EPA 6020B		20	07/13/16 08:10	07/14/16 17:55	6070252	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Lead	ND	0.0050	80000.0	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Lithium	0.0015	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:18	6070252	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/13/16 14:10	07/14/16 15:12	6070254	CSW



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

Report No.: AZG0254
Client ID: HGWA-5

Date/Time Sampled: 7/11/2016 3:41:00PM

Matrix: Ground Water

July 21, 2016

Project: CCR Event

Lab Number ID: AZG0254-02

Date/Time Received: 7/12/2016 8:40:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	158	25	10	mg/L	SM 2540 C		1	07/18/16 13:50	07/18/16 13:50	6070364	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/14/16 11:07	07/14/16 19:18	6070308	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	07/14/16 11:07	07/14/16 19:18	6070308	RLC
Sulfate	27	1.0	0.05	mg/L	EPA 300.0		1	07/14/16 11:07	07/14/16 19:18	6070308	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Barium	0.0565	0.0100	0.0003	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Boron	0.0052	0.100	0.0044	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Calcium	35.4	5.00	0.126	mg/L	EPA 6020B		10	07/13/16 08:10	07/14/16 18:01	6070252	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Cobalt	0.0010	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Lithium	0.0034	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:24	6070252	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/13/16 14:10	07/14/16 15:40	6070254	CSW



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

Report No.: AZG0254
Client ID: HGWA-6

Date/Time Sampled: 7/11/2016 2:30:00PM

Matrix: Ground Water

Project: CCR Event

Lab Number ID: AZG0254-03

Date/Time Received: 7/12/2016 8:40:00AM

July 21, 2016

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	225	25	10	mg/L	SM 2540 C		1	07/18/16 13:50	07/18/16 13:50	6070364	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/14/16 11:07	07/14/16 20:20	6070308	RLC
Fluoride	0.13	0.30	0.02	mg/L	EPA 300.0	J	1	07/14/16 11:07	07/14/16 20:20	6070308	RLC
Sulfate	34	1.0	0.05	mg/L	EPA 300.0		1	07/14/16 11:07	07/14/16 20:20	6070308	RLC
Metals, Total											
Antimony	0.0010	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Barium	0.134	0.0100	0.0003	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Boron	0.0179	0.100	0.0044	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Calcium	49.3	10.0	0.251	mg/L	EPA 6020B		20	07/13/16 08:10	07/14/16 18:06	6070252	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Lead	ND	0.0050	80000.0	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Molybdenum	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Lithium	0.0100	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:30	6070252	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/13/16 14:10	07/14/16 15:42	6070254	CSW



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

Report No.: AZG0254
Client ID: HGWA-1

Date/Time Sampled: 7/11/2016 3:42:00PM

Matrix: Ground Water

July 21, 2016

Project: CCR Event

Lab Number ID: AZG0254-04

Date/Time Received: 7/12/2016 8:40:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	363	25	10	mg/L	SM 2540 C		1	07/18/16 13:50	07/18/16 13:50	6070364	JPT
Inorganic Anions											
Chloride	6.3	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/14/16 11:07	07/14/16 20:41	6070308	RLC
Fluoride	0.16	0.30	0.02	mg/L	EPA 300.0	J	1	07/14/16 11:07	07/14/16 20:41	6070308	RLC
Sulfate	41	1.0	0.05	mg/L	EPA 300.0		1	07/14/16 11:07	07/14/16 20:41	6070308	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Barium	0.0311	0.0100	0.0003	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Boron	0.0142	0.100	0.0044	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Calcium	97.2	10.0	0.251	mg/L	EPA 6020B		20	07/13/16 08:10	07/14/16 18:24	6070252	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Cobalt	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Lead	ND	0.0050	80000.0	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:36	6070252	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/13/16 14:10	07/14/16 15:45	6070254	CSW



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

Report No.: AZG0254
Client ID: HGWA-2

Date/Time Sampled: 7/11/2016 4:25:00PM

Matrix: Ground Water

July 21, 2016

Project: CCR Event

Lab Number ID: AZG0254-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	125	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	5.9	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/14/16 11:07	07/14/16 22:24	6070308	RLC
Fluoride	0.05	0.30	0.02	mg/L	EPA 300.0	J	1	07/14/16 11:07	07/14/16 22:24	6070308	RLC
Sulfate	45	1.0	0.05	mg/L	EPA 300.0		1	07/14/16 11:07	07/14/16 22:24	6070308	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Arsenic	0.0020	0.0050	0.0007	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Barium	0.112	0.0100	0.0003	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Boron	0.0337	0.100	0.0044	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Calcium	22.3	2.50	0.0628	mg/L	EPA 6020B		5	07/13/16 08:10	07/14/16 15:47	6070252	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Cobalt	0.0267	0.0100	0.0003	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Lithium	0.0014	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/13/16 08:10	07/14/16 15:41	6070252	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/13/16 14:10	07/14/16 15:47	6070254	CSW



Attention: Mr. Joju Abraham

July 21, 2016

Report No.: AZG0254

General Chemistry - Quality Control

PACE ANALYTICAL SERVICES, INC.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070260 - SM 2540 C											
Blank (6070260-BLK1)						Prepare	ed & Analy	yzed: 07/1:	3/16		
Total Dissolved Solids	12	25	10	mg/L							J
LCS (6070260-BS1)						Prepare	ed & Analy	yzed: 07/1:	3/16		
Total Dissolved Solids	428	25	10	mg/L	400.00	· ·	107	84-108			
Duplicate (6070260-DUP1)		So	urce: AZG02	253-03		Prepare	ed & Anal	yzed: 07/1	3/16		
Total Dissolved Solids	254	25	10	mg/L		242	•	,	5	10	
Duplicate (6070260-DUP2)		So	urce: AZG02	254-02		Prepare	ed & Anal	yzed: 07/1	3/16		
Total Dissolved Solids	172	25	10	mg/L		182	<u> </u>	,	6	10	
Batch 6070304 - SM 2540 C											
Blank (6070304-BLK1)						Prepare	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	ND	25	10	mg/L		· ·	•	,			
LCS (6070304-BS1)						Prepare	ed & Anal	vzed: 07/1	4/16		
Total Dissolved Solids	384	25	10	mg/L	400.00		96	84-108			
Duplicate (6070304-DUP1)		So	urce: AZG02	253-04		Prepare	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	155	25	10	mg/L		149		,	4	10	
Duplicate (6070304-DUP2)		So	urce: AZG02	286-03		Prepare	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	244	25	10	mg/L		249		,	2	10	
Batch 6070323 - SM 2540 C											
Blank (6070323-BLK1)						Prepare	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	ND	25	10	mg/L		- 1		,	-		



Attention: Mr. Joju Abraham

Report No.: AZG0254

PACE ANALYTICAL SERVICES, INC.

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

July 21, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070323 - SM 2540 C											
LCS (6070323-BS1)						Prepar	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	391	25	10	mg/L	400.00		98	84-108			
Duplicate (6070323-DUP1)		Soi	urce: AZG0:	225-01RE1		Prepar	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	165	25	10	mg/L		282	,	,	52	10	QR-03
Duplicate (6070323-DUP2)		Soi	urce: AZG0:	253-03RE1		Prepar	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	275	25	10	mg/L		377		•	31	10	QR-03
Batch 6070364 - SM 2540 C											
Blank (6070364-BLK1)						Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	ND	25	10	mg/L				-			
LCS (6070364-BS1)						Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	402	25	10	mg/L	400.00		100	84-108			
Duplicate (6070364-DUP1)		Soi	urce: AZG0	225-01RE2		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	141	25	10	mg/L		139		-	1	10	
Duplicate (6070364-DUP2)		Soi	urce: AZG0	225-02RE2		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	17	25	10	mg/L		16		,	6	10	J
Duplicate (6070364-DUP3)		Soi	urce: AZG0:	225-03RE2		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	125	25	10	mg/L		125		-	0	10	
Duplicate (6070364-DUP4)		Soi	urce: AZG0:	225-04RE2		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	137	25	10	mg/L		131		•	4	10	



Attention: Mr. Joju Abraham

Report No.: AZG0254

PACE ANALYTICAL SERVICES, INC.

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

July 21, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070364 - SM 2540 C											
Duplicate (6070364-DUP5)		So	urce: AZG0	253-01RE2		Prepar	ed & Analy	yzed: 07/1	8/16		
Total Dissolved Solids	145	25	10	mg/L		142			2	10	
Duplicate (6070364-DUP6)		So	urce: AZG0	253-02RE2		Prepar	ed & Analy	yzed: 07/1	8/16		
Total Dissolved Solids	179	25	10	mg/L		195			9	10	
Duplicate (6070364-DUP7)		So	urce: AZG0:	253-03RE2		Prepar	ed & Analy	yzed: 07/1	8/16		
Total Dissolved Solids	257	25	10	mg/L		262			2	10	
Duplicate (6070364-DUP8)		So	urce: AZG0:	254-01RE2		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	268	25	10	mg/L		266			0.7	10	
Duplicate (6070364-DUP9)		So	urce: AZG0:	254-02RE2		Prepar	ed & Analy	yzed: 07/1	8/16		
Total Dissolved Solids	161	25	10	mg/L		158			2	10	
Duplicate (6070364-DUPA)		So	urce: AZG0:	254-03RE2		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	225	25	10	mg/L		225	•		0	10	
Duplicate (6070364-DUPB)		So	urce: AZG0	254-04RE2		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	358	25	10	mg/L		363			1	10	



Attention: Mr. Joju Abraham July 21, 2016

Report No.: AZG0254

Inorganic Anions - Quality Control

PACE ANALYTICAL SERVICES, INC.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070308 - EPA 300.0											
Blank (6070308-BLK1)						Prepar	ed & Anal	yzed: 07/14	4/16		
Chloride	0.04	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6070308-BS1)						Prepar	ed & Anal	yzed: 07/14	4/16		
Chloride	10.0	0.25	0.01	mg/L	10.010		100	90-110			
Fluoride	10.7	0.30	0.02	mg/L	10.010		107	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		102	90-110			
Matrix Spike (6070308-MS1)		Sou	urce: AZG0	254-02		Prepar	ed & Anal	yzed: 07/14	4/16		
Chloride	11.5	0.25	0.01	mg/L	10.010	2.00	95	90-110			
Fluoride	10.7	0.30	0.02	mg/L	10.010	0.09	106	90-110			
Sulfate	34.2	1.0	0.05	mg/L	10.010	26.6	77	90-110			QM-05
Matrix Spike (6070308-MS2)		Sou	urce: AZG0	254-05		Prepar	ed & Anal	yzed: 07/14	4/16		
Chloride	15.7	0.25	0.01	mg/L	10.010	5.86	98	90-110			
Fluoride	11.2	0.30	0.02	mg/L	10.010	0.05	112	90-110			QM-05
Sulfate	50.4	1.0	0.05	mg/L	10.010	44.7	56	90-110			QM-05
Matrix Spike Dup (6070308-MSD1)		Sou	urce: AZG0	254-02		Prepar	ed & Anal	yzed: 07/14	4/16		
Chloride	11.5	0.25	0.01	mg/L	10.010	2.00	95	90-110	0.2	15	
Fluoride	10.8	0.30	0.02	mg/L	10.010	0.09	107	90-110	0.5	15	
Sulfate	34.3	1.0	0.05	mg/L	10.010	26.6	77	90-110	0.1	15	QM-05



Georgia Power 2480 Maner Road

Atlanta GA, 30339

Attention: Mr. Joju Abraham July 21, 2016

Report No.: AZG0254

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

	D 11	Б.	MDI		Spike	Source		%REC		RPD	
Analyte	Result	RL	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6070252 - EPA 3005A											
Blank (6070252-BLK1)						Prepare	ed: 07/13/	16 Analyz	ed: 07/14/	16	
Antimony	0.0004	0.0030	0.0002	mg/L							J
Arsenic	ND	0.0050	0.0007	mg/L							
Barium	ND	0.0050	0.0003	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.100	0.0044	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0126	mg/L							
Chromium	ND	0.0100	0.0004	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00006	mg/L							
Vanadium	ND	0.0100	0.0016	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0012	mg/L							
LCS (6070252-BS1)						Prepare	ed: 07/13/	16 Analyz	ed: 07/14/	16	
Antimony	0.114	0.0030	0.0002	mg/L	0.10000		114	80-120			
Arsenic	0.102	0.0050	0.0007	mg/L	0.10000		102	80-120			
Barium	0.108	0.0100	0.0003	mg/L	0.10000		108	80-120			
Beryllium	0.107	0.0030	0.00009	mg/L	0.10000		107	80-120			
Boron	1.12	0.100	0.0044	mg/L	1.0000		112	80-120			
Cadmium	0.0988	0.0010	0.0001	mg/L	0.10000		99	80-120			
Calcium	1.06	0.500	0.0126	mg/L	1.0000		106	80-120			
Chromium	0.102	0.0100	0.0004	mg/L	0.10000		102	80-120			
Cobalt	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Copper	0.103	0.0250	0.0004	mg/L	0.10000		103	80-120			
Lead	0.0962	0.0050	0.00008	mg/L	0.10000		96	80-120			
Molybdenum	0.110	0.0100	0.0005	mg/L	0.10000		110	80-120			
Nickel	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Selenium	0.0987	0.0100	0.0009	mg/L	0.10000		99	80-120			
Silver	0.110	0.0100	0.0002	mg/L	0.10000		110	80-120			
Thallium	0.0969	0.0010	0.00006	mg/L	0.10000		97	80-120			
Vanadium	0.105	0.0100	0.0016	mg/L	0.10000		105	80-120			
Zinc	0.103	0.0100	0.0013	mg/L	0.10000		103	80-120			
Lithium	0.103	0.0500	0.0013	mg/L	0.10000		103	80-120			
Littiiuiff	0.101	0.0000	0.0012	mg/L	0.10000		101	00-120			



Attention: Mr. Joju Abraham July 21, 2016

Report No.: AZG0254

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070252 - EPA 3005A											
Matrix Spike (6070252-MS1)		Sou	ırce: AZG02	25-02		Prepar	ed: 07/13/	16 Analyz	ed: 07/14	/16	
Antimony	0.112	0.0030	0.0002	mg/L	0.10000	0.0023	109	75-125			
Arsenic	0.101	0.0050	0.0007	mg/L	0.10000	ND	101	75-125			
Barium	0.112	0.0100	0.0003	mg/L	0.10000	0.0095	103	75-125			
Beryllium	0.110	0.0030	0.00009	mg/L	0.10000	ND	110	75-125			
Boron	1.12	0.100	0.0044	mg/L	1.0000	0.0067	111	75-125			
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	ND	101	75-125			
Calcium	2.03	0.500	0.0126	mg/L	1.0000	1.00	103	75-125			
Chromium	0.103	0.0100	0.0004	mg/L	0.10000	ND	103	75-125			
Cobalt	0.102	0.0100	0.0003	mg/L	0.10000	0.0004	102	75-125			
Copper	0.120	0.0250	0.0004	mg/L	0.10000	0.0152	105	75-125			
Lead	0.0992	0.0050	0.00008	mg/L	0.10000	0.0001	99	75-125			
Molybdenum	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Nickel	0.119	0.0100	0.0005	mg/L	0.10000	0.0140	105	75-125			
Selenium	0.0990	0.0100	0.0009	mg/L	0.10000	ND	99	75-125			
Silver	0.105	0.0100	0.0002	mg/L	0.10000	ND	105	75-125			
Thallium	0.0989	0.0010	0.00006	mg/L	0.10000	ND	99	75-125			
Vanadium	0.105	0.0100	0.0016	mg/L	0.10000	0.0028	102	75-125			
Zinc	0.109	0.0100	0.0013	mg/L	0.10000	0.0098	99	75-125			
Lithium	0.108	0.0500	0.0012	mg/L	0.10000	0.0049	103	75-125			
Matrix Spike Dup (6070252-MSD1)		Sou	ırce: AZG02	25-02		Prepar	ed: 07/13/	16 Analyz	ed: 07/14	/16	
Antimony	0.113	0.0030	0.0002	mg/L	0.10000	0.0023	110	75-125	1	20	
Arsenic	0.0999	0.0050	0.0007	mg/L	0.10000	ND	100	75-125	1	20	
Barium	0.114	0.0100	0.0003	mg/L	0.10000	0.0095	104	75-125	1	20	
Beryllium	0.107	0.0030	0.00009	mg/L	0.10000	ND	107	75-125	3	20	
Boron	1.02	0.100	0.0044	mg/L	1.0000	0.0067	101	75-125	9	20	
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	ND	101	75-125	0.7	20	
Calcium	2.07	0.500	0.0126	mg/L	1.0000	1.00	106	75-125	2	20	
Chromium	0.101	0.0100	0.0004	mg/L	0.10000	ND	101	75-125	2	20	
Cobalt	0.102	0.0100	0.0003	mg/L	0.10000	0.0004	101	75-125	0.6	20	
Copper	0.121	0.0250	0.0004	mg/L	0.10000	0.0152	106	75-125	1	20	
Lead	0.0964	0.0050	0.00008	mg/L	0.10000	0.0001	96	75-125	3	20	
Molybdenum	0.109	0.0100	0.0005	mg/L	0.10000	ND	109	75-125	4	20	
Nickel	0.119	0.0100	0.0005	mg/L	0.10000	0.0140	105	75-125	0.4	20	
Selenium	0.0974	0.0100	0.0009	mg/L	0.10000	ND	97	75-125	2	20	
Silver	0.109	0.0100	0.0002	mg/L	0.10000	ND	109	75-125	4	20	
Thallium	0.0969	0.0010	0.00006	mg/L	0.10000	ND	97	75-125	2	20	
Vanadium	0.104	0.0100	0.0016	mg/L	0.10000	0.0028	101	75-125	0.9	20	
Zinc	0.112	0.0100	0.0013	mg/L	0.10000	0.0098	102	75-125	3	20	
Lithium	0.105	0.0500	0.0012	mg/L	0.10000	0.0049	100	75-125	3	20	



Mercury

0.00247

0.00050

0.00013

Atlanta GA, 30339

Report No.: AZG0254

Attention: Mr. Joju Abraham

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070252 - EPA 3005A											
Post Spike (6070252-PS1)		Sou	ırce: AZG02	25-02		Prepare	ed: 07/13/	16 Analyz	ed: 07/14/	16	
Antimony	104			ug/L	100.00	2.32	102	80-120			
Arsenic	99.6			ug/L	100.00	0.534	99	80-120			
Barium	108			ug/L	100.00	9.46	99	80-120			
Beryllium	105			ug/L	100.00	0.0534	105	80-120			
Boron	1050			ug/L	1000.0	6.73	104	80-120			
Cadmium	99.3			ug/L	100.00	0.0519	99	80-120			
Calcium	2020			ug/L	1000.0	1000	102	80-120			
Chromium	104			ug/L	100.00	0.423	103	80-120			
Cobalt	102			ug/L	100.00	0.377	102	80-120			
Copper	114			ug/L	100.00	15.2	99	80-120			
Lead	96.7			ug/L	100.00	0.130	97	80-120			
Molybdenum	103			ug/L	100.00	0.0777	102	80-120			
Nickel	117			ug/L	100.00	14.0	102	80-120			
Selenium	94.9			ug/L	100.00	-0.285	95	80-120			
Silver	103			ug/L	100.00	0.0065	103	80-120			
Thallium	97.9			ug/L	100.00	0.0339	98	80-120			
Vanadium	103			ug/L	100.00	2.78	101	80-120			
Zinc	106			ug/L	100.00	9.83	96	80-120			
Lithium	103			ug/L	100.00	4.93	98	80-120			
Batch 6070254 - EPA 7470A											
Blank (6070254-BLK1)						Prepare	ed: 07/13/	16 Analyz	ed: 07/14/	16	
Mercury	ND	0.00020	0.00013	mg/L				-			
LCS (6070254-BS1)						Prepare	ed: 07/13/	16 Analyz	ed: 07/14/	16	

2.5000E-3

mg/L

99

80-120

July 21, 2016



Environmental Monitoring & Laboratory Analysis 110 Technology Parkway, Peachtree Corners, GA 30092

PACE ANALYTICAL SERVICES, INC.

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

July 21, 2016 Attention: Mr. Joju Abraham

Report No.: AZG0254

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070254 - EPA 7470A											
Matrix Spike (6070254-MS1)		Sou	ırce: AZG02	25-01		Prepare	ed: 07/13/	16 Analyz	ed: 07/14/	′16	
Mercury	0.00240	0.00050	0.00013	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (6070254-MSD1))	Sou	ırce: AZG02	25-01		Prepare	ed: 07/13/	16 Analyz	ed: 07/14/	′16	
Mercury	0.00236	0.00050	0.00013	mg/L	2.5000E-3	ND	94	75-125	2	20	
Post Spike (6070254-PS1)		Sou	ırce: AZG02	25-01		Prepare	ed: 07/13/	16 Analyz	ed: 07/14/	′16	
Mercury	1.64			ug/L	1.6667	-0.0409	101	80-120			



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 21, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit MDL - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

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

9

PAGE:

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E	Pace Analytical"	www.pacelabs.com	
		- 75	

CHAIN OF CUSTODY RECORD

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

5 - NaOHIZnAc, 56°C 7 - s6°C not frozen 6 - Na, S, O, 46°C REMARKS/ADDITIONAL INFORMATION 2 - H2504, 56°C 4 - NaOH, 56°C L - LIQUID P - PRODUCT PRESERVATION 1. HCI, 58°C SLUDGE S. SOIL SL. SLUDGE SD. SOLID 3 - HNO3 A- AIR PRIABUSE ONLY "MATRIX CODES. Entered into LIMS: (+# DRINKING WATER SURFACE WATER GROUNDWATER A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER STORM WATER WASTEWATER CONTAINER TYPE P - PLASTIC ST - STORM V Fracking # LAB#: GW. - MS WW. Z D Z M W K < 0 - 0) OTHER DATE/TIME: DATE/TIME FIZIN 08.40 ANALYSIS REQUESTED COURIER 629 4 629 4 678 61, 6, 504 848 505 500 846 705 500 846 705 500 846 -2 USPS Broken Not Prefet We the 99A 21A2M EFA TO 4 6600 AFT CO, F, SO, + 68, 500 SAMPLE SHIPPED VIA: RELINQUISHED BY: FED-EX CONTAINER TWPE: Custody Seal: PESCHAATION UPS Intact jo # 30 3 + 3 SAMPLE IDENTIFICATION 404-506-9239 Max CC. Heath McLoryle 17:45 Pedilla V46WA-6 HEWA -4 V460A-2 DATE/TIME: 7-11-2016 DATE/TIME: V 146WA-5 V H GWA-Maria Po# AP GW CCR CLIENT ADDRESSIPHONE NUMBER: 241 Robbin M. Se BIOISS
A-Hanta, Or 30308 404-8 0 . 4 . 0024 COMPONY Jeja Abraham REQUESTED COMPLETION DATE: della CODE* SAC 3 14.30 Cm Z Plant Hammond SAMPLED BY AND TITLE. Cores June Coults of RECEIVED BY 16:25 Collection 15:43 PROJECT NAME/STATE 15:09 15.41 REPORT TO: 2 2 Collection 2

COC Revised 2016-05-17.xlsx



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

LOG-IN CHECKLIST

Printed: 7/21/2016 3:21:42PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR EventWork Order:AZG0254Date Received:07/12/16 08:40Logged In By:Charles Hawks

OBSERVATIONS

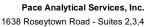
#Samples: 5 **#Containers:** 16

Minimum Temp(C): 1.0 Maximum Temp(C): 1.0 Custody Seal(s) Used: No

CHECKLIST ITEMS

YES
YES
YES
YES
NO
YES

Comments:





Greensburg, PA 15601 (724)850-5600

August 15, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond AP GW CCR

Pace Project No.: 30189718

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on July 13, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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

Sugarly Cellins

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

Plant Hammond AP GW CCR Project:

Pace Project No.: 30189718

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: Plant Hammond AP GW CCR

Pace Project No.: 30189718

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30189718001	HGWA-4	Water	07/11/16 15:09	07/13/16 09:40
30189718002	HGWA-5	Water	07/11/16 15:41	07/13/16 09:40
30189718003	HGWA-6	Water	07/11/16 14:30	07/13/16 09:40
30189718004	HGWA-1	Water	07/11/16 15:42	07/13/16 09:40
30189718005	HGWA-2	Water	07/11/16 16:25	07/13/16 09:40



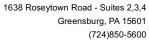
SAMPLE ANALYTE COUNT

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189718

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30189718001	HGWA-4	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189718002	HGWA-5	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189718003	HGWA-6	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189718004	HGWA-1	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189718005	HGWA-2	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

REPORT OF LABORATORY ANALYSIS





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189718

Pace Project No.: 3018971	8				
Sample: HGWA-4 PWS:	Lab ID: 3018971 Site ID:	8001 Collected: 07/11/16 15:09 Sample Type:	Received:	07/13/16 09:40 Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed CAS No.	Qual
Radium-226	EPA 9315	0.442 ± 0.305 (0.546)	pCi/L	08/14/16 16:55 13982-63-3	-
Radium-228	EPA 9320	C:95% T:NA 0.749 ± 0.377 (0.644) C:69% T:83%	pCi/L	08/09/16 02:08 15262-20-1	
Total Radium	Total Radium Calculation	1.19 ± 0.682 (1.19)	pCi/L	08/15/16 14:32 7440-14-4	
Sample: HGWA-5	Lab ID: 3018971		Received:	07/13/16 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	0.0599 ± 0.112 (0.253) C:95% T:NA	pCi/L	08/15/16 08:03 13982-63-3	
Radium-228	EPA 9320	1.62 ± 0.583 (0.852) C:59% T:78%	pCi/L	08/09/16 02:08 15262-20-1	
Total Radium	Total Radium Calculation	1.68 ± 0.695 (1.11)	pCi/L	08/15/16 14:32 7440-14-4	
Sample: HGWA-6 PWS:	Lab ID: 3018971 Site ID:	8003 Collected: 07/11/16 14:30 Sample Type:	Received:	07/13/16 09:40 Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed CAS No.	Qual
Radium-226	EPA 9315	0.0454 ± 0.174 (0.421)	pCi/L	08/15/16 08:03 13982-63-3	
Radium-228	EPA 9320	C:97% T:NA 0.449 ± 0.328 (0.622) C:75% T:78%	pCi/L	08/09/16 02:08 15262-20-1	
Total Radium	Total Radium Calculation	0.494 ± 0.502 (1.04)	pCi/L	08/15/16 14:32 7440-14-4	
Sample: HGWA-1 PWS:	Lab ID: 3018971 Site ID:	8004 Collected: 07/11/16 15:42 Sample Type:	Received:	07/13/16 09:40 Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed CAS No.	Qual
Radium-226	EPA 9315	0.113 ± 0.148 (0.307)	pCi/L	08/15/16 08:03 13982-63-3	
Radium-228	EPA 9320	C:90% T:NA 0.625 ± 0.310 (0.514) C:73% T:87%	pCi/L	08/09/16 02:08 15262-20-1	
Total Radium	Total Radium Calculation	0.738 ± 0.458 (0.821)	pCi/L	08/15/16 14:32 7440-14-4	
Sample: HGWA-2 PWS:	Lab ID: 3018971 Site ID:	8005 Collected: 07/11/16 16:25 Sample Type:	Received:	07/13/16 09:40 Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed CAS No.	Qual
Radium-226	EPA 9315	0.234 ± 0.205 (0.388) C:88% T:NA	pCi/L	08/15/16 08:03 13982-63-3	
Radium-228	EPA 9320	1.15 ± 0.424 (0.613) C:70% T:85%	pCi/L	08/09/16 02:08 15262-20-1	

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189718

Sample: HGWA-2 Lab ID: 30189718005 Collected: 07/11/16 16:25 Received: 07/13/16 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
 1.38 ± 0.629 (1.00)
 pCi/L
 08/15/16 14:32 7440-14-4
 7440-14-4

Calculation

REPORT OF LABORATORY ANALYSIS





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189718

 QC Batch:
 227858
 Analysis Method:
 EPA 9320

 QC Batch Method:
 EPA 9320
 Analysis Description:
 9320 Radium 228

 Associated Lab Samples:
 30189718001, 30189718002, 30189718003, 30189718004, 30189718005

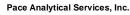
METHOD BLANK: 1116127 Matrix: Water

Associated Lab Samples: 30189718001, 30189718002, 30189718003, 30189718004, 30189718005

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.524 ± 0.378 (0.726) C:74% T:84%
 pCi/L
 08/08/16 21:20

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





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189718

 QC Batch:
 229107
 Analysis Method:
 EPA 9315

 QC Batch Method:
 EPA 9315
 Analysis Description:
 9315 Total Radium

 Associated Lab Samples:
 30189718001, 30189718002, 30189718003, 30189718004, 30189718005

METHOD BLANK: 1122752 Matrix: Water

Associated Lab Samples: 30189718001, 30189718002, 30189718003, 30189718004, 30189718005

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.218 ± 0.224 (0.447) C:98% T:NA
 pCi/L
 08/14/16 16:55

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





QUALIFIERS

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189718

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

Date: 08/15/2016 05:50 PM

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.

9980 2 - H.S.C. - str. C 3 - HNC. 4 - Nath f. str. 6 - Nath f. str. C 6 - Nath f. str. C 7 - str. painten REMARKS/ADDITIONAL INFORMATION A AIR
L- LIGHT 光温温温 ð 3888 8888 8888 DW DRBYDNG WATER
WY WASTEWATER
SW GROUNDWATER
SY SUFFACE WATER
ST STORM WATER
W WATER *** -- 0 - 2 3 **2** 0 0 0 E CANT OTHER ES Pace Araivilical Page Analytical Services, Inc.

Machinese 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4201 FAX (770) 734-4201 DATE/TAKE XICTOR 7 Fiells Dr. 16 UPS FEDEX USPS COURER CURLON BRIEF Natur Broken HX Prefit | Perfect 11 + III + 14 VIN + 14 VIN + 15 VIN + 1 ¢5 RELINGUISHED BY 1 50 wy 0330 404-566-9239 SAMPLE IDENTIFICATION OC. Health McLoritle OATERINE 7-11-ZON 7:45 DATERINE: 7-60737 46W9 - 4 と目のアンジ Hawan-1 16up-5 Plant Harmond AP GOV CLR AX HUMBER. SF BROKES CHAIN OF CUSTODY RECORD 13 SE 4 SE O D M V TELOGICAL PROJECTAL LOVESTED COMPLETION DATE: CONTROL CONDON CONTROL Collegion Coffection MATRIX
DATE TIME CODS. 3 35 T. 3 14.30 [32] SAMPLED BY AND TITLE COSS JAME CONSOLI ROBINED BY PROJECT NAMESTATE 7 4 11 11 125 11 110 115.41 11 10 15 09 15-42

MLT 7-13-16 09

GOC Revised 2016-05-17.xlsx

Sample Condition Upon Receipt Pittsburgh

30189718

Face Analytical Client Name:		6	4	Power	Project#
Courier: 🕅 Fed Ex 🔲 UPS 🗍 USPS 🗎 Client Tracking #: <u>681750976320</u>	ı 🏻 c	omme	rcial	Pace Other	
Tracking #: <u>681/504 16 3 20</u>					¬
Custody Seal on Cooler/Box Present: yes				intact: yes [no
Thermometer Used	Type o			Blue None	°C Final Temp:
Cooler Temperature Observed Temp		٠C	Corre	ction Factor:	°C Final Temp:
Temp should be above freezing to 6°C					Date and initials of person examining
	Yes	No	N/A	<u> </u>	contents: 103V 7-13-16
Comments:	163	Ϋ́	14// \	1. received	7-14-16
Chain of Custody Present:		_/_		2.	17:10
Chain of Custody Filled Out:	$+ \circlearrowleft$				•
Chain of Custody Relinquished:				3.	
Sampler Name & Signature on COC:	+^+			4.	
Sample Labels match COC:	<u></u> i		<u> </u>	5.	
-Includes date/time/ID/Analysis Matrix:	T	WI	T		
Samples Arrived within Hold Time:				6.	
Short Hold Time Analysis (<72hr remaining):				7	
Rush Turn Around Time Requested:			ļ <u> </u>	8.	
Sufficient Volume:			-	9.	
Correct Containers Used:		<u> </u>		10.	
-Pace Containers Used:		X	<u> </u>		
Containers Intact:	X		ļ	11.	
Filtered volume received for Dissolved tests			ì	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	Date/time of preservation
exceptions: VOA, collioniii, 100, 088, 1 neholios				Lot # of added preservative	
Headspace in VOA Vials (>6mm):			$\perp \chi$	14.	
Trip Blank Present:			X	15.	
Trip Blank Custody Seals Present			X		
Client Notification/ Resolution: Person Contacted:		r- Aunim		Time:	Contacted By:
Comments/ Resolution: /Sowers		ds/A	-7	-Z /z gals	
/ 2gal 6WA56	- 410 HZ	WA	-51		
1 5- 1 ASS	11/	WA	<u>-Й</u>	1 /z god each	
6-WA53R	11/8	WA	-2	/	
000,123.	11/8	WA	-1/		<u>/</u>

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)

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

8/3/2016 Date: Analyst:

Face Analytical

30597 DW Worklist: Matrix: MB Sample ID

Method Blank Assessment

Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:

MS/MSD Decay Corrected Spike Concentration (pCi/πL): Spike Volume Used in MS (πL):

Sample Collection Date:

Sample Matrix Spike Control Assessment

MSD Target Conc. (pCl/L, g, F):

Spike uncertainty (calculated):

Sample Result:

Sample Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Result:

Matrix Spike Result Counting Uncertainly (pCi/L, g, F):

Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCifl., 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;

MS Aliquot (L, g, F): MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F):

Spike Volume Used in MSD (mL):

0.524 0.366 0.726 2.81 N/A MB concentration: M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC

_CSD30597 8/8/2016 16-025 25.987 0.20 0.814 6.383 0.460 4.668 0.578 4.55 16-025 25.987 0.20 0.805 6.455 0.465 6.146 0.602 -0.80 95.20% Aliquot Volume (L, g, F): Target Conc. (pCl/L, g, F): Uncertainty (Calculated): Spike Concentration (pCi/mL): Volume Used (ml.): Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Percent Recovery: Status vs Numerical Indicator: Status vs Recovery: Count Date: Spike I.D.: Numerical Performance Indicator: Laboratory Control Sample Assessment

Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike/Matrix Spike Duplicate Sample Assessment **Enter Duplicate**

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

Sample 1.D.: Duplicate Sample 1.D.

Duplicate Sample Assessment

LCS30597 LCSD30597 6.146 0.602 4.668 0.578 NO 3.468 27.33% N/A

Sample Result (p.Cl.L. g, F):
Sample Result (p.Cl.L. g, F):
Sample Duplicate Result (p.Cl.L. g, F):
Sample Duplicate Result (p.Cl.L. g, F):
Are sample and/or duplicate results below MDC7

Duplicate Numerical Performance Indicator: Duplicate RPD:

Duplicate Status vs Numerical Indicator;

Duplicate Status vs RPD;

Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCif., g. F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/l., g, F):

MS/ MSD Duplicate RPD: Duplicate Numerical Performance Indicator: MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:

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

Comments:

91) SI /8M)

<u> 1. julius partinistas, journa 1770 de la Presidentia de la Presidentia de la Presidentia de la Presidentia de</u> La composito de la Caracteria de la Caracteria

Ra_228_30597_W.xls Ra-228 (R086-6 17Jul2016).xls

1 of 1

0.664.000.4644.660.6644

Face Analytical

Quality Control Sample Performance Assessment

Ra-226	JAL	8/9/2016	30778	DW
Test:	Analyst:	Date:	Worklist:	Matrix:

1122752 0.218 0.222 0.447 1.93 N/A Pass

MB MDC.

MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC:

Laboratory Control Sample Assessment

MB Sample ID MB concentration: M/B Counting Uncertainty:

Method Blank Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	Sample Collection Date:	Sample I.D.	all down plants	Spike I.D.:	MS/MSD Decay Corrected Spike Concentration (pCl/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:
							•					Z	LCSD30778													

5D (Y or N)7 LCS30778 8/15/2016 16-026 44.679 0.10 0.507 8.805 0.414 10.843

Count Date:
Spike I.D.:
Spike Concentration (pCt/mL):
Volume Used (mL):

Aliquot Volume (L., g. F.):
Target Conc. (pCil., g. F.):
Uncertainty (Calculated):
Result (pCil., g. F.):
LCS/LCSD Counting Uncertainty (pCil., g. F.):
Numerical Performance Indicator:

Percent Recovery: Status vs Numerical Indicator: Status vs Recovery

Duplicate Sample Assessment

icate Sample Assessment			Matrix Spike/Matrix Spike Duplicate Sample Ass
Sample I.D.:	Sample LD.: 30189653001 Feter Duniteate	Foter Dunificate	
Duplicate Sample I.D. 30189653001DUPI sample IDs if	30189653001DUP	sample IDs if	
Sample Result (pCI/L, g, F):	1,544	other than	
Sample Result Counting Uncertainty (pCl/L, g, F):	0.448	LCS/LCSD in the	Sample Mai
Sample Duplicate Result (pCi/L, g, F):	1.624	space below.	Matrix Spike Result Counting Uncerta
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.383		Sample Matrix Spike
Are sample and/or duplicate results below MDC?	See Below ##		Matrix Spike Duplicate Result Counting Uncerta
Duplicate-Numerical Performance Indicator:	-0.267	30189653001	Duplicate Numerical Perfor
Duplicate RPD:	5.07%	30189653001DUP	MS/ MSE
Duplicate Status vs Numerical Indicator:	N/A		MS/ MSD Duplicate Status vs Nur
Duplicate Status vs RPD:	Pass		MS/ MSD Duplicate

|--|

Sample t.D.

sessment

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

Comments:

Mx 8/15/16.

TAR DW QC Printed: 8/15/2016 3:21 PM



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: AZG0286 July 20, 2016

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, Inc.

All test results relate only to the samples analyzed.



July 20, 2016 Attention: Mr. Joju Abraham

ANALYTICAL REPORT FOR SAMPLES

PACE ANALYTICAL SERVICES, INC.

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB-1	AZG0286-01	DI Water	07/12/16 14:00	07/13/16 08:15
FB-2	AZG0286-02	DI Water	07/12/16 14:15	07/13/16 08:15
HGWA-3	AZG0286-03	Ground Water	07/12/16 09:24	07/13/16 08:15
HGWC-14	AZG0286-04	Ground Water	07/12/16 13:55	07/13/16 08:15
HGWC-7	AZG0286-05	Ground Water	07/12/16 10:20	07/13/16 08:15
HGWC-16	AZG0286-06	Ground Water	07/12/16 14:30	07/13/16 08:15
HGWC-13	AZG0286-07	Ground Water	07/12/16 12:20	07/13/16 08:15
HGWC-8	AZG0286-08	Ground Water	07/12/16 10:40	07/13/16 08:15
HGWC-15	AZG0286-09	Ground Water	07/12/16 12:35	07/13/16 08:15
HGWC-10	AZG0286-10	Ground Water	07/12/16 11:21	07/13/16 08:15
Dup-2	AZG0286-11	Ground Water	07/12/16 00:00	07/13/16 08:15
FERB-2	AZG0286-12	DI Water	07/12/16 16:00	07/13/16 08:15
FERB-1	AZG0286-13	DI Water	07/12/16 15:50	07/13/16 08:15
HGWC-9	AZG0286-14	Ground Water	07/12/16 10:05	07/13/16 08:15
Dup-1	AZG0286-15	Ground Water	07/12/16 00:00	07/13/16 08:15
HGWC-11	AZG0286-16	Ground Water	07/12/16 11:35	07/13/16 08:15
HGWC-12	AZG0286-17	Ground Water	07/12/16 12:30	07/13/16 08:15
HGWC-17	AZG0286-18	Ground Water	07/12/16 15:04	07/13/16 08:15
HGWC-18	AZG0286-19	Ground Water	07/12/16 15:21	07/13/16 08:15



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

Report No.: AZG0286
Client ID: FB-1

Date/Time Sampled: 7/12/2016 2:00:00PM

Matrix: DI Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-01

ı Init.	Batch	Analytical Date	Preparation Date	DF	Qual.	Method	Units	MDL	RL	Result	Analyte
											General Chemistry
9 JPT	6070339	07/15/16 13:50	07/15/16 13:50	1		SM 2540 C	mg/L	10	25	ND	Total Dissolved Solids
											Inorganic Anions
3 RLC	6070333	07/15/16 13:23	07/15/16 09:38	1	J, B-01	EPA 300.0	mg/L	0.01	0.25	0.05	Chloride
3 RLC	6070333	07/15/16 13:23	07/15/16 09:38	1		EPA 300.0	mg/L	0.02	0.30	ND	Fluoride
3 RLC	6070333	07/15/16 13:23	07/15/16 09:38	1	J	EPA 300.0	mg/L	0.05	1.0	0.08	Sulfate
											Metals, Total
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0002	0.0030	ND	Antimony
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0007	0.0050	ND	Arsenic
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0003	0.0100	ND	Barium
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.00009	0.0030	ND	Beryllium
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0044	0.100	ND	Boron
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0001	0.0010	ND	Cadmium
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0126	0.500	ND	Calcium
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0004	0.0100	ND	Chromium
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0003	0.0100	ND	Cobalt
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.00008	0.0050	ND	Lead
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0005	0.0100	ND	Molybdenum
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0009	0.0100	ND	Selenium
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.00006	0.0010	ND	Thallium
4 CSW	6070274	07/15/16 14:01	07/14/16 09:00	1		EPA 6020B	mg/L	0.0012	0.0500	ND	Lithium
5 CSW	6070275	07/15/16 15:35	07/15/16 08:50	1		EPA 7470A	mg/L	0.00013	0.00050	ND	Mercury
	607027 607027 607027 607027 607027 607027 607027	07/15/16 14:01 07/15/16 14:01 07/15/16 14:01 07/15/16 14:01 07/15/16 14:01 07/15/16 14:01 07/15/16 14:01 07/15/16 14:01 07/15/16 14:01	07/14/16 09:00 07/14/16 09:00 07/14/16 09:00 07/14/16 09:00 07/14/16 09:00 07/14/16 09:00 07/14/16 09:00 07/14/16 09:00	1 1 1 1 1 1 1 1		EPA 6020B	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.0001 0.0126 0.0004 0.0003 0.00008 0.0005 0.0009 0.00006 0.0012	0.0010 0.500 0.0100 0.0100 0.0050 0.0100 0.0100 0.0010 0.0500	ND	Cadmium Calcium Chromium Cobalt Lead Molybdenum Selenium Thallium Lithium



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

Report No.: AZG0286

Client ID: FB-2

Date/Time Sampled: 7/12/2016 2:15:00PM

Matrix: DI Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-02

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	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	0.08	0.25	0.01	mg/L	EPA 300.0	J, B-01	1	07/15/16 09:38	07/15/16 13:44	6070333	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 13:44	6070333	RLC
Sulfate	0.08	1.0	0.05	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 13:44	6070333	RLC
Metals, Total											
Antimony	0.0008	0.0030	0.0002	mg/L	EPA 6020B	J, B-01	1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Calcium	ND	0.500	0.0126	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Thallium	0.00008	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:31	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:49	6070275	CSW



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

Report No.: AZG0286
Client ID: HGWA-3

Date/Time Sampled: 7/12/2016 9:24:00AM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-03

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	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	6.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/15/16 09:38	07/15/16 14:05	6070333	RLC
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 14:05	6070333	RLC
Sulfate	44	1.0	0.05	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 14:05	6070333	RLC
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	J, B-01	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Arsenic	0.0008	0.0050	0.0007	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Barium	0.115	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Boron	0.0074	0.100	0.0044	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Calcium	61.5	5.00	0.126	mg/L	EPA 6020B		10	07/14/16 09:00	07/18/16 13:00	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Lead	0.0001	0.0050	80000.0	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Lithium	0.0024	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:37	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:51	6070275	CSW



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

Report No.: AZG0286
Client ID: HGWC-14

Date/Time Sampled: 7/12/2016 1:55:00PM

Matrix: Ground Water

Project: CCR Event

Lab Number ID: AZG0286-04

Date/Time Received: 7/13/2016 8:15:00AM

July 20, 2016

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3140	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	620	5.0	0.28	mg/L	EPA 300.0	B-01	20	07/15/16 09:38	07/19/16 19:54	6070333	RLC
Fluoride	0.20	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 15:07	6070333	RLC
Sulfate	1300	50	2.6	mg/L	EPA 300.0		50	07/15/16 09:38	07/20/16 02:06	6070333	RLC
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Arsenic	0.0059	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Barium	0.0214	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Beryllium	0.0005	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Boron	16.0	1.00	0.0441	mg/L	EPA 6020B		10	07/14/16 09:00	07/18/16 13:11	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Calcium	528	50.0	1.26	mg/L	EPA 6020B		100	07/14/16 09:00	07/18/16 13:06	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Cobalt	0.0232	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Lead	0.0015	0.0050	80000.0	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Selenium	0.0146	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Thallium	0.0003	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:43	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:53	6070275	CSW



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZG0286
Client ID: HGWC-7

Date/Time Sampled: 7/12/2016 10:20:00AM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	410	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	50	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/19/16 20:15	6070333	RLC
Fluoride	0.20	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 15:27	6070333	RLC
Sulfate	100	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 20:15	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Barium	0.0731	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Boron	0.857	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Calcium	88.8	5.00	0.126	mg/L	EPA 6020B		10	07/14/16 09:00	07/18/16 13:17	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Cobalt	0.0003	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Molybdenum	0.0273	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Lithium	0.0021	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:49	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:56	6070275	CSW



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZG0286
Client ID: HGWC-16

Date/Time Sampled: 7/12/2016 2:30:00PM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-06

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	585	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	34	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/15/16 09:38	07/15/16 15:48	6070333	RLC
Fluoride	0.26	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 15:48	6070333	RLC
Sulfate	220	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 20:35	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Barium	0.0886	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Boron	1.62	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Calcium	142	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:23	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Lead	ND	0.0050	80000.0	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Lithium	0.0037	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 14:54	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 15:58	6070275	CSW



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

Report No.: AZG0286
Client ID: HGWC-13

Date/Time Sampled: 7/12/2016 12:20:00PM

Matrix: Ground Water

ject: CCR Event

July 20, 2016

Project: CCR Event
Lab Number ID: AZG0286-07

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	563	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	78	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/19/16 20:56	6070333	RLC
Fluoride	0.53	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 16:09	6070333	RLC
Sulfate	210	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 20:56	6070333	RLC
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Arsenic	0.297	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Barium	0.0697	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Boron	1.91	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Calcium	101	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:40	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Cobalt	0.0032	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Lead	ND	0.0050	80000.0	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Molybdenum	0.0316	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Thallium	0.0004	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Lithium	0.0366	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:00	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:00	6070275	CSW



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

Report No.: AZG0286
Client ID: HGWC-8

Date/Time Sampled: 7/12/2016 10:40:00AM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-08

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	704	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	110	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/19/16 21:17	6070333	RLC
Fluoride	0.67	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 16:29	6070333	RLC
Sulfate	230	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 21:17	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Barium	0.0830	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Boron	1.43	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Cadmium	0.0002	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Calcium	127	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:46	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Cobalt	0.0019	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Molybdenum	0.455	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Thallium	0.00007	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Lithium	0.0023	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:06	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:03	6070275	CSW



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

Report No.: AZG0286
Client ID: HGWC-15

Date/Time Sampled: 7/12/2016 12:35:00PM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-09

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	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	190	5.0	0.28	mg/L	EPA 300.0	B-01	20	07/15/16 09:38	07/19/16 23:00	6070333	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 18:13	6070333	RLC
Sulfate	440	20	1.0	mg/L	EPA 300.0		20	07/15/16 09:38	07/19/16 23:00	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Barium	0.0372	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Boron	1.65	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Cadmium	0.0019	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Calcium	186	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:52	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Cobalt	0.0393	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Lead	ND	0.0050	80000.0	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Molybdenum	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:12	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:05	6070275	CSW



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

Report No.: AZG0286
Client ID: HGWC-10

Date/Time Sampled: 7/12/2016 11:21:00AM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-10

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	661	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	63	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/19/16 23:20	6070333	RLC
Fluoride	0.15	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 18:33	6070333	RLC
Sulfate	190	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/19/16 23:20	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Barium	0.0926	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Boron	0.778	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Calcium	143	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 13:58	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Molybdenum	0.0013	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:17	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:07	6070275	CSW
				-							



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZG0286
Client ID: Dup-2

Date/Time Sampled: 7/12/2016 12:00:00AM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-11

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1190	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	240	5.0	0.28	mg/L	EPA 300.0	B-01	20	07/15/16 09:38	07/19/16 23:41	6070333	RLC
Fluoride	0.05	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 18:54	6070333	RLC
Sulfate	510	20	1.0	mg/L	EPA 300.0		20	07/15/16 09:38	07/19/16 23:41	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Barium	0.0398	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Boron	1.65	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Cadmium	0.0018	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Calcium	197	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 14:03	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Cobalt	0.0394	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:23	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:10	6070275	CSW



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZG0286
Client ID: FERB-2

Date/Time Sampled: 7/12/2016 4:00:00PM

Matrix: DI Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-12

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	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	0.88	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/15/16 09:38	07/15/16 19:15	6070333	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 19:15	6070333	RLC
Sulfate	2.0	1.0	0.05	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 19:15	6070333	RLC
Metals, Total											
Antimony	0.0007	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Calcium	ND	0.500	0.0126	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Thallium	0.00007	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 15:57	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:18	6070275	CSW



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

Report No.: AZG0286
Client ID: FERB-1

Date/Time Sampled: 7/12/2016 3:50:00PM

Matrix: DI Water

Project: CCR Event

July 20, 2016

Lab Number ID: AZG0286-13

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	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	0.02	0.25	0.01	mg/L	EPA 300.0	B-01, J	1	07/15/16 09:38	07/15/16 19:35	6070333	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 19:35	6070333	RLC
Sulfate	0.11	1.0	0.05	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 19:35	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Barium	0.0013	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Calcium	0.285	0.500	0.0126	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:02	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:20	6070275	CSW



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

Report No.: AZG0286
Client ID: HGWC-9

Date/Time Sampled: 7/12/2016 10:05:00AM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-14

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	887	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	160	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/20/16 00:02	6070333	RLC
Fluoride	0.24	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 19:56	6070333	RLC
Sulfate	230	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/20/16 00:02	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Barium	0.130	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Boron	1.56	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Calcium	174	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 14:09	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Lead	ND	0.0050	80000.0	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Molybdenum	0.0229	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Lithium	0.0040	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:08	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:22	6070275	CSW



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

Report No.: AZG0286

Client ID: Dup-1 Date/Time Sampled: 7/12/2016 12:00:00AM

Matrix: Ground Water

July 20, 2016

Project: **CCR Event**

Lab Number ID: AZG0286-15

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	897	25	10	mg/L	SM 2540 C		1	07/14/16 13:05	07/14/16 13:05	6070304	JPT
Inorganic Anions											
Chloride	71	1.2	0.07	mg/L	EPA 300.0	B-01	5	07/15/16 09:38	07/20/16 00:22	6070333	RLC
Fluoride	0.17	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 20:17	6070333	RLC
Sulfate	100	5.0	0.26	mg/L	EPA 300.0		5	07/15/16 09:38	07/20/16 00:22	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Barium	0.130	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Boron	1.58	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Calcium	167	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 14:15	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Molybdenum	0.0223	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Lithium	0.0041	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:14	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:25	6070275	CSW



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

Report No.: AZG0286
Client ID: HGWC-11

Date/Time Sampled: 7/12/2016 11:35:00AM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-16

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	627	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	100	2.5	0.14	mg/L	EPA 300.0	B-01	10	07/15/16 09:38	07/20/16 00:43	6070333	RLC
Fluoride	0.44	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 20:37	6070333	RLC
Sulfate	390	10	0.51	mg/L	EPA 300.0		10	07/15/16 09:38	07/20/16 00:43	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Arsenic	0.0015	0.0050	0.0007	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Barium	0.0616	0.0100	0.0003	mg/L	EPA 6020B	B-01	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Boron	1.17	0.100	0.0044	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Calcium	124	25.0	0.628	mg/L	EPA 6020B		50	07/14/16 09:00	07/18/16 14:20	6070274	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Cobalt	0.0021	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Molybdenum	0.0251	0.0100	0.0005	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Selenium	0.0057	0.0100	0.0009	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Thallium	0.00008	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/14/16 09:00	07/15/16 16:19	6070274	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/15/16 08:50	07/15/16 16:27	6070275	CSW



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

Report No.: AZG0286
Client ID: HGWC-12

Date/Time Sampled: 7/12/2016 12:30:00PM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-17

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	909	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	160	2.5	0.14	mg/L	EPA 300.0	B-01	10	07/15/16 09:38	07/20/16 01:04	6070333	RLC
Fluoride	0.31	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 20:58	6070333	RLC
Sulfate	320	10	0.51	mg/L	EPA 300.0		10	07/15/16 09:38	07/20/16 01:04	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Arsenic	0.0050	0.0050	0.0007	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Barium	0.135	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Boron	1.98	0.100	0.0044	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Calcium	181	25.0	0.628	mg/L	EPA 6020B		50	07/15/16 07:55	07/18/16 17:25	6070320	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Cobalt	0.0018	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Molybdenum	0.0484	0.0100	0.0005	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Thallium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Lithium	0.0113	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:20	6070320	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/18/16 11:30	07/18/16 16:52	6070347	CSW



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

Report No.: AZG0286
Client ID: HGWC-17

Date/Time Sampled: 7/12/2016 3:04:00PM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-18

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	976	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	100	2.5	0.14	mg/L	EPA 300.0	B-01	10	07/15/16 09:38	07/20/16 01:24	6070333	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	07/15/16 09:38	07/15/16 21:19	6070333	RLC
Sulfate	460	10	0.51	mg/L	EPA 300.0		10	07/15/16 09:38	07/20/16 01:24	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Barium	0.0221	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Boron	9.58	1.00	0.0441	mg/L	EPA 6020B		10	07/15/16 07:55	07/18/16 17:37	6070320	KLH
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Calcium	199	25.0	0.628	mg/L	EPA 6020B		50	07/15/16 07:55	07/18/16 17:31	6070320	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Cobalt	0.0148	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Thallium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:26	6070320	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/18/16 11:30	07/18/16 17:00	6070347	CSW



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

Report No.: AZG0286
Client ID: HGWC-18

Date/Time Sampled: 7/12/2016 3:21:00PM

Matrix: Ground Water

July 20, 2016

Project: CCR Event

Lab Number ID: AZG0286-19

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1950	25	10	mg/L	SM 2540 C		1	07/15/16 13:50	07/15/16 13:50	6070339	JPT
Inorganic Anions											
Chloride	300	5.0	0.28	mg/L	EPA 300.0	B-01	20	07/15/16 09:38	07/20/16 01:45	6070333	RLC
Fluoride	0.54	0.30	0.02	mg/L	EPA 300.0		1	07/15/16 09:38	07/15/16 23:23	6070333	RLC
Sulfate	930	20	1.0	mg/L	EPA 300.0		20	07/15/16 09:38	07/20/16 01:45	6070333	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Arsenic	0.0074	0.0050	0.0007	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Barium	0.0346	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Beryllium	0.0032	0.0030	0.00009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Boron	11.9	1.00	0.0441	mg/L	EPA 6020B		10	07/15/16 07:55	07/18/16 17:48	6070320	KLH
Cadmium	0.0022	0.0010	0.0001	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Calcium	328	25.0	0.628	mg/L	EPA 6020B		50	07/15/16 07:55	07/18/16 17:43	6070320	KLH
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Cobalt	0.168	0.0100	0.0003	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Lead	0.0012	0.0050	80000.0	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Selenium	0.0360	0.0100	0.0009	mg/L	EPA 6020B		1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Thallium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Lithium	0.0141	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/15/16 07:55	07/18/16 15:32	6070320	KLH
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/18/16 11:30	07/18/16 17:03	6070347	CSW



Attention: Mr. Joju Abraham July 20, 2016

Report No.: AZG0286

General Chemistry - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070304 - SM 2540 C											
Blank (6070304-BLK1)						Prepare	ed & Analy	yzed: 07/1	4/16		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6070304-BS1)						Prepare	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	384	25	10	mg/L	400.00	•	96	84-108			
Duplicate (6070304-DUP1)		So	urce: AZG02	253-04		Prepare	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	155	25	10	mg/L		149	•	,	4	10	
Duplicate (6070304-DUP2)		So	urce: AZG02	286-03		Prepare	ed & Anal	yzed: 07/1	4/16		
Total Dissolved Solids	244	25	10	mg/L		249	•	·	2	10	
Batch 6070339 - SM 2540 C											
Blank (6070339-BLK1)						Prepare	ed & Anal	yzed: 07/1	5/16		
Total Dissolved Solids	ND	25	10	mg/L		•	•	•			
LCS (6070339-BS1)						Prepare	ed & Anal	vzed: 07/1	5/16		
Total Dissolved Solids	387	25	10	mg/L	400.00		97	84-108			
Duplicate (6070339-DUP1)		So	urce: AZG02	286-06		Prepare	ed & Anal	yzed: 07/1	5/16		
Total Dissolved Solids	599	25	10	mg/L		585		,	2	10	
Duplicate (6070339-DUP2)		So	urce: AZG02	286-17		Prepare	ed & Anal	yzed: 07/1	5/16		
Total Dissolved Solids	942	25	10	mg/L		909		,	4	10	
Batch 6070351 - SM 2540 C											
Blank (6070351-BLK1)						Prepare	ed & Anal	yzed: 07/18	8/16		
Total Dissolved Solids	ND	25	10	mg/L		-		,	-		



Attention: Mr. Joju Abraham

Report No.: AZG0286

PACE ANALYTICAL SERVICES, INC.

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

July 20, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070351 - SM 2540 C											
LCS (6070351-BS1)						Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	395	25	10	mg/L	400.00		99	84-108			
Duplicate (6070351-DUP1)		So	urce: AZG02	286-07RE1		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	572	25	10	mg/L		562		-	2	10	
Duplicate (6070351-DUP2)		So	urce: AZG02	286-08RE1		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	703	25	10	mg/L		686		-	2	10	
Duplicate (6070351-DUP3)		So	urce: AZG02	286-10RE1		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	624	25	10	mg/L		647		<u>-</u>	4	10	
Duplicate (6070351-DUP4)		So	urce: AZG03	365-02		Prepar	ed & Anal	yzed: 07/1	8/16		
Total Dissolved Solids	142	25	10	mg/L		135		-	5	10	



Attention: Mr. Joju Abraham

Report No.: AZG0286

Inorganic Anions - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070333 - EPA 300.0											
Blank (6070333-BLK1)						Prepar	ed & Anal	yzed: 07/1	5/16		
Chloride	0.09	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6070333-BS1)						Prepar	ed & Anal	yzed: 07/1	5/16		
Chloride	9.88	0.25	0.01	mg/L	10.010		99	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010		106	90-110			
Sulfate	10.1	1.0	0.05	mg/L	10.010		101	90-110			
Matrix Spike (6070333-MS1)		Sou	ırce: AZG02	286-03		Prepar	ed & Anal	yzed: 07/1	5/16		
Chloride	15.6	0.25	0.01	mg/L	10.010	6.16	94	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.010	0.12	101	90-110			
Sulfate	49.9	1.0	0.05	mg/L	10.010	44.4	55	90-110			QM-05
Matrix Spike (6070333-MS2)		Sou	ırce: AZG02	286-18		Prepar	ed & Anal	yzed: 07/1	5/16		
Chloride	91.8	0.25	0.01	mg/L	10.010	91.7	0.9	90-110			QM-05
Fluoride	10.5	0.30	0.02	mg/L	10.010	0.09	104	90-110			
Sulfate	286	1.0	0.05	mg/L	10.010	302	NR	90-110			QM-05
Matrix Spike Dup (6070333-MSD1)		Sou	ırce: AZG02	286-03		Prepar	ed & Anal	yzed: 07/1	5/16		
Chloride	15.9	0.25	0.01	mg/L	10.010	6.16	98	90-110	2	15	
Fluoride	10.6	0.30	0.02	mg/L	10.010	0.12	105	90-110	3	15	
Sulfate	50.2	1.0	0.05	mg/L	10.010	44.4	58	90-110	0.6	15	QM-05

July 20, 2016



PACE ANALYTICAL SERVICES, INC.

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

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

					Spike	Source		%REC		RPD	
Analyte	Result	RL	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6070274 - EPA 3005A											
Blank (6070274-BLK1)						Prepare	ed: 07/14/	16 Analyz	ed: 07/15/	16	
Antimony	0.0003	0.0030	0.0002	mg/L							
Arsenic	ND	0.0050	0.0007	mg/L							
Barium	0.0004	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.100	0.0044	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0126	mg/L							
Chromium	ND	0.0100	0.0004	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00006	mg/L							
Vanadium	ND	0.0100	0.0016	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0012	mg/L							
LCS (6070274-BS1)						Prepare	ed: 07/14/	16 Analyz	ed: 07/15/	16	
Antimony	0.108	0.0030	0.0002	mg/L	0.10000		108	80-120			
Arsenic	0.0994	0.0050	0.0007	mg/L	0.10000		99	80-120			
Barium	0.0986	0.0100	0.0003	mg/L	0.10000		99	80-120			
Beryllium	0.102	0.0030	0.00009	mg/L	0.10000		102	80-120			
Boron	0.997	0.100	0.0044	mg/L	1.0000		100	80-120			
Cadmium	0.100	0.0010	0.0001	mg/L	0.10000		100	80-120			
Calcium	1.07	0.500	0.0126	mg/L	1.0000		107	80-120			
Chromium	0.0999	0.0100	0.0004	mg/L	0.10000		100	80-120			
Cobalt	0.0996	0.0100	0.0003	mg/L	0.10000		100	80-120			
Copper	0.100	0.0250	0.0004	mg/L	0.10000		100	80-120			
Lead	0.0973	0.0050	0.00008	mg/L	0.10000		97	80-120			
Molybdenum	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Nickel	0.0965	0.0100	0.0005	mg/L	0.10000		97	80-120			
Selenium	0.100	0.0100	0.0009	mg/L	0.10000		100	80-120			
Silver	0.102	0.0100	0.0002	mg/L	0.10000		102	80-120			
Thallium	0.0989	0.0010	0.00006	mg/L	0.10000		99	80-120			
Vanadium	0.0981	0.0100	0.0016	mg/L	0.10000		98	80-120			
	0.0301										
Zinc	0.0989	0.0100	0.0013	mg/L	0.10000		99	80-120			



Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

					Spike	Source		%REC		RPD	
Analyte	Result	RL	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6070274 - EPA 3005A											
Matrix Spike (6070274-MS1)		Sou	ırce: AZG02	85-03		Prepare	ed: 07/14/	16 Analyz	ed: 07/15/	16	
Antimony	0.119	0.0030	0.0002	mg/L	0.10000	0.0094	110	75-125			
Arsenic	0.102	0.0050	0.0007	mg/L	0.10000	0.0009	101	75-125			
Barium	0.126	0.0100	0.0003	mg/L	0.10000	0.0246	101	75-125			
Beryllium	0.0972	0.0030	0.00009	mg/L	0.10000	ND	97	75-125			
Boron	0.940	0.100	0.0044	mg/L	1.0000	0.0050	93	75-125			
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	ND	101	75-125			
Calcium	30.0	2.50	0.0628	mg/L	1.0000	29.6	35	75-125			QM-02
Chromium	0.102	0.0100	0.0004	mg/L	0.10000	ND	102	75-125			
Cobalt	0.0969	0.0100	0.0003	mg/L	0.10000	ND	97	75-125			
Copper	0.0960	0.0250	0.0004	mg/L	0.10000	ND	96	75-125			
Lead	0.0968	0.0050	0.00008	mg/L	0.10000	ND	97	75-125			
Molybdenum	0.109	0.0100	0.0005	mg/L	0.10000	0.0011	108	75-125			
Nickel	0.0982	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Selenium	0.0985	0.0100	0.0009	mg/L	0.10000	ND	98	75-125			
Silver	0.101	0.0100	0.0002	mg/L	0.10000	ND	101	75-125			
Thallium	0.0998	0.0010	0.00006	mg/L	0.10000	0.00007	100	75-125			
Vanadium	0.103	0.0100	0.0016	mg/L	0.10000	0.0020	101	75-125			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000	ND	105	75-125			
Lithium	0.0964	0.0500	0.0012	mg/L	0.10000	ND	96	75-125			
Matrix Spike Dup (6070274-MSD1)		Sou	ırce: AZG02	85-03		Prepare	ed: 07/14/	16 Analyz	ed: 07/15/	16	
Antimony	0.119	0.0030	0.0002	mg/L	0.10000	0.0094	109	75-125	0.04	20	
Arsenic	0.105	0.0050	0.0007	mg/L	0.10000	0.0009	104	75-125	2	20	
Barium	0.126	0.0100	0.0003	mg/L	0.10000	0.0246	102	75-125	0.3	20	
Beryllium	0.100	0.0030	0.00009	mg/L	0.10000	ND	100	75-125	3	20	
Boron	0.975	0.100	0.0044	mg/L	1.0000	0.0050	97	75-125	4	20	
Cadmium	0.0991	0.0010	0.0001	mg/L	0.10000	ND	99	75-125	2	20	
Calcium	29.8	2.50	0.0628	mg/L	1.0000	29.6	11	75-125	0.8	20	QM-02
Chromium	0.103	0.0100	0.0004	mg/L	0.10000	ND	103	75-125	0.4	20	
Cobalt	0.0958	0.0100	0.0003	mg/L	0.10000	ND	96	75-125	1	20	
Copper	0.0973	0.0250	0.0004	mg/L	0.10000	ND	97	75-125	1	20	
Lead	0.0961	0.0050	0.00008	mg/L	0.10000	ND	96	75-125	0.7	20	
Molybdenum	0.108	0.0100	0.0005	mg/L	0.10000	0.0011	107	75-125	0.9	20	
Nickel	0.0944	0.0100	0.0005	mg/L	0.10000	ND	94	75-125	4	20	
Selenium	0.105	0.0100	0.0009	mg/L	0.10000	ND	105	75-125	6	20	
Silver	0.0971	0.0100	0.0002	mg/L	0.10000	ND	97	75-125	4	20	
Thallium	0.0999	0.0010	0.00006	mg/L	0.10000	0.00007	100	75-125	0.09	20	
Vanadium	0.101	0.0100	0.0016	mg/L	0.10000	0.0020	99	75-125	1	20	
Zinc	0.101	0.0100	0.0013	mg/L	0.10000	ND	101	75-125	4	20	
Lithium	0.0963	0.0500	0.0012	mg/L	0.10000	ND	96	75-125	0.09	20	
Liunam	3.0000	0.0000	0.0012	mg/L	3.10000	IND	30	10-120	0.03	20	



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

Attention: Mr. Joju Abraham

Report No.: AZG0286

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis 110 Technology Parkway, Peachtree Corners, GA 30092

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070274 - EPA 3005A											
Post Spike (6070274-PS1)		Sou	ırce: AZG02	85-03		Prepare	ed: 07/14/	16 Analyz	ed: 07/15	/16	
Antimony	109			ug/L	100.00	9.37	100	80-120			
Arsenic	98.8			ug/L	100.00	0.881	98	80-120			
Barium	124			ug/L	100.00	24.6	99	80-120			
Beryllium	103			ug/L	100.00	0.0104	103	80-120			
Boron	976			ug/L	1000.0	5.04	97	80-120			
Cadmium	100			ug/L	100.00	-0.0070	100	80-120			
Calcium	29500			ug/L	1000.0	29600	NR	80-120			QM-02
Chromium	98.3			ug/L	100.00	0.251	98	80-120			
Cobalt	97.0			ug/L	100.00	0.0362	97	80-120			
Copper	94.8			ug/L	100.00	0.211	95	80-120			
Lead	94.8			ug/L	100.00	0.0103	95	80-120			
Molybdenum	108			ug/L	100.00	1.14	107	80-120			
Nickel	94.4			ug/L	100.00	-0.0435	94	80-120			
Selenium	96.4			ug/L	100.00	-0.385	97	80-120			
Silver	99.2			ug/L	100.00	0.0045	99	80-120			
Thallium	97.9			ug/L	100.00	0.0736	98	80-120			
Vanadium	102			ug/L	100.00	2.04	100	80-120			
Zinc	97.9			ug/L	100.00	0.969	97	80-120			
Lithium	98.4			ug/L	100.00	0.445	98	80-120			
Batch 6070275 - EPA 7470A											
Blank (6070275-BLK1)						Prepare	ed & Anal	yzed: 07/1	5/16		
Mercury	ND	0.00050	0.00013	mg/L							
LCS (6070275-BS1)						Prepare	ed & Anal	yzed: 07/1	5/16		
Mercury	0.00235	0.00050	0.00013	mg/L	2.5000E-3		94	80-120			

July 20, 2016



PACE ANALYTICAL SERVICES, INC.

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

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070275 - EPA 7470A											
Matrix Spike (6070275-MS1)		Sou	ırce: AZG02	86-09		Prepare	ed & Analy	yzed: 07/1	5/16		
Mercury	0.00186	0.00050	0.00013	mg/L	2.5000E-3	ND	75	75-125			
Matrix Spike Dup (6070275-MSD1	1)	Sou	ırce: AZG02	86-09		Prepare	ed & Anal	yzed: 07/1	5/16		
Mercury	0.00188	0.00050	0.00013	mg/L	2.5000E-3	ND.	75	75-125	1	20	
Post Spike (6070275-PS1)		Sou	ırce: AZG02	86-09		Prepare	ed & Anal	yzed: 07/1	5/16		
Mercury	1.31			ug/L	1.6667	0.0174	78	80-120			QM-05
Batch 6070320 - EPA 3005A											
Blank (6070320-BLK1)						Prepare	ed: 07/15/	16 Analyz	ed: 07/18/	/16	
Antimony	ND	0.0030	0.0002	mg/L		•		·			
Arsenic	ND	0.0050	0.0007	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.100	0.0044	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0126	mg/L							
Chromium	ND	0.0100	0.0004	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00006	mg/L							
Vanadium	ND	0.0100	0.0016	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0012	mg/L							



Attention: Mr. Joju Abraham July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070320 - EPA 3005A											
LCS (6070320-BS1)						Prepar	ed: 07/15/	16 Analyz	ed: 07/18/	′16	
Antimony	0.107	0.0030	0.0002	mg/L	0.10000		107	80-120			
Arsenic	0.106	0.0050	0.0007	mg/L	0.10000		106	80-120			
Barium	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Beryllium	0.103	0.0030	0.00009	mg/L	0.10000		103	80-120			
Boron	0.967	0.100	0.0044	mg/L	1.0000		97	80-120			
Cadmium	0.104	0.0010	0.0001	mg/L	0.10000		104	80-120			
Calcium	1.03	0.500	0.0126	mg/L	1.0000		103	80-120			
Chromium	0.103	0.0100	0.0004	mg/L	0.10000		103	80-120			
Cobalt	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Copper	0.103	0.0250	0.0004	mg/L	0.10000		103	80-120			
Lead	0.0998	0.0050	0.00008	mg/L	0.10000		100	80-120			
Molybdenum	0.110	0.0100	0.0005	mg/L	0.10000		110	80-120			
Nickel	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Selenium	0.101	0.0100	0.0009	mg/L	0.10000		101	80-120			
Silver	0.108	0.0100	0.0002	mg/L	0.10000		108	80-120			
Thallium	0.102	0.0010	0.00006	mg/L	0.10000		102	80-120			
Vanadium	0.107	0.0100	0.0016	mg/L	0.10000		107	80-120			
Zinc	0.103	0.0100	0.0013	mg/L	0.10000		103	80-120			
Lithium	0.0979	0.0500	0.0012	mg/L	0.10000		98	80-120			
		•		_		_					
Matrix Spike (6070320-MS1)	0.105	0.0030	0.0002		0.10000	0.0003	ed: 07/15/ 105	16 Analyz 75-125	ed: 07/18/	16	
Antimony	0.103	0.0050	0.0002	mg/L	0.10000						
Arsenic	0.100	0.0030	0.0007	mg/L	0.10000	ND 0.0355	100	75-125 75-125			
Barium	0.124	0.0030		mg/L	0.10000	0.0255	98				
Beryllium	0.949	0.100	0.00009 0.0044	mg/L	0.10000	ND	95	75-125			
Boron	0.949	0.100		mg/L	1.0000	0.0047	94	75-125			
Calaium	13.2	2.50	0.0001	mg/L	0.10000	ND	101 90	75-125			
Calcium	0.106	0.0100	0.0628	mg/L	1.0000	12.3		75-125			
Chromium			0.0004	mg/L	0.10000	0.0029	103	75-125			
Cobalt	0.0977 0.0995	0.0100	0.0003	mg/L	0.10000	ND	98	75-125			
Copper		0.0250	0.0004	mg/L	0.10000	ND	99	75-125			
Lead	0.0940	0.0050	0.00008	mg/L	0.10000	0.0001	94	75-125			
Molybdenum	0.110	0.0100	0.0005	mg/L	0.10000	0.0017	108	75-125			
Nickel	0.0976	0.0100	0.0005	mg/L	0.10000	0.0007	97	75-125			
Selenium	0.0991	0.0100	0.0009	mg/L	0.10000	ND	99	75-125			
Silver	0.102	0.0100	0.0002	mg/L	0.10000	ND	102	75-125			
Thallium	0.0966	0.0010	0.00006	mg/L	0.10000	0.0002	96	75-125			
Vanadium	0.101	0.0100	0.0016	mg/L	0.10000	ND	101	75-125			
Zinc	0.0973	0.0100	0.0013	mg/L	0.10000	0.0031	94	75-125			
Lithium	0.0909	0.0500	0.0012	mg/L	0.10000	ND	91	75-125			



Environmental Monitoring & Laboratory Analysis

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

PACE ANALYTICAL SERVICES, INC.

Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 20, 2016

Report No.: AZG0286

Metals, Total - Quality Control

Matrix Spike Dup (6070320 - EPA 3005A	
Matrix Spike Dup (6070320-MSD1) Source: AZG0365-03 Prepared: 07/15/16 Analyzed: 07/18/16 Analyzed:	Notes
Antimony 0.102 0.0030 0.0002 mg/L 0.10000 0.0003 102 75-125 3 20 Arsenic 0.101 0.0050 0.0007 mg/L 0.10000 0.0031 102 75-125 3 20 Beryllium 0.1022 0.0100 0.0003 mg/L 0.10000 0.0255 97 75-125 1 20 Beryllium 0.0981 0.0030 0.00030 mg/L 0.10000 0.0255 97 75-125 1 20 Beryllium 0.0981 0.0030 0.00030 mg/L 0.10000 0.0255 97 75-125 3 20 Beryllium 0.0981 0.0030 0.00030 mg/L 0.10000 0.0025 97 75-125 3 20 Beryllium 0.0984 0.100 0.0044 mg/L 0.1000 0.0047 94 75-125 0.5 20 Cadmium 0.0999 0.0010 0.0001 mg/L 0.10000 ND 100 75-125 0.9 20 Calcium 12.9 2.50 0.0628 mg/L 0.10000 ND 100 75-125 2 2 20 Chromium 0.110 0.0100 0.0004 mg/L 0.10000 ND 101 75-125 3 20 Chromium 0.110 0.0100 0.0003 mg/L 0.10000 ND 101 75-125 3 20 Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 ND 101 75-125 3 20 Cobalt 0.0014 0.0093 0.0008 mg/L 0.10000 ND 101 75-125 3 20 Cobalt 0.0014 0.0093 0.0008 mg/L 0.10000 ND 101 75-125 3 20 Cobalt 0.0014 0.0093 0.0008 mg/L 0.10000 ND 101 75-125 3 20 Cobalt 0.0014 0.00993 0.0008 mg/L 0.10000 ND 101 75-125 2 20 Molybdenum 0.108 0.0100 0.0008 mg/L 0.10000 0.0001 96 75-125 2 20 NB/Lea 0.0094 0.0095 0.0008 mg/L 0.10000 0.0007 101 75-125 1 20 Silver 0.103 0.0100 0.0005 mg/L 0.10000 0.0007 101 75-125 1 20 Silver 0.103 0.0100 0.0009 mg/L 0.10000 ND 103 75-125 1 20 Silver 0.103 0.0100 0.0009 mg/L 0.10000 ND 103 75-125 1 20 Silver 0.103 0.0100 0.0009 mg/L 0.10000 ND 103 75-125 1 20 Silver 0.103 0.0100 0.0009 mg/L 0.10000 ND 103 75-125 1 20 Silver 0.103 0.0100 0.0009 mg/L 0.10000 ND 104 75-125 2 2 20 NB/Lea 0.0009 0.00	
Arsenic	
Barlum	
Beryllium	
Boron 0.944 0.100 0.0044 mg/L 1.0000 0.0047 94 75-125 0.5 20 Cadmium 0.0999 0.0010 0.0001 mg/L 0.10000 ND 100 75-125 0.9 20 Calcium 12.9 2.50 0.0628 mg/L 1.0000 12.3 59 75-125 2 20 Chromium 0.110 0.0100 0.0004 mg/L 0.10000 0.0029 107 75-125 3 20 Chromium 0.110 0.0100 0.0004 mg/L 0.10000 0.0029 107 75-125 3 20 Chromium 0.110 0.0100 0.0004 mg/L 0.10000 ND 101 75-125 3 20 Chromium 0.101 0.0100 0.0003 mg/L 0.10000 ND 101 75-125 3 20 Chromium 0.0101 0.0004 mg/L 0.10000 ND 101 75-125 3 20 Chromium 0.0004 0.0003 mg/L 0.10000 ND 101 75-125 3 20 Chromium 0.0004 0.0005 0.00008 mg/L 0.10000 ND 101 75-125 2 2 20 Molybdenum 0.108 0.0100 0.0005 mg/L 0.10000 0.0011 96 75-125 2 2 20 Molybdenum 0.108 0.0100 0.0005 mg/L 0.10000 0.0001 96 75-125 2 2 20 Nickel 0.1011 0.0100 0.0005 mg/L 0.10000 0.0001 101 75-125 4 20 Stelenium 0.1000 0.0100 0.0005 mg/L 0.10000 ND 100 75-125 1 20 Stelenium 0.1000 0.0100 0.0005 mg/L 0.10000 ND 100 75-125 1 20 Stelenium 0.100 0.0100 0.0000 mg/L 0.10000 ND 100 75-125 1 20 Stelenium 0.1000 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 20 Chromium 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 20 Chromium 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 20 Chromium 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 20 Chromium 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 20 Chromium 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 20 Chromium 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 2 2 20 Chromium 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 2 2 20 Chromium 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 2 2 20 Chromium 0.0000 0.0000 mg/L 0.10000 ND 100 75-125 1 2 2 20 Chromium 0.0000 ND 100 0.00	
Cadmium 0.0999 0.0010 0.0001 mg/L 0.10000 ND 100 75-125 0.9 20 Calcium 12.9 2.50 0.0628 mg/L 1.0000 12.3 59 75-125 2 20 Chornmium 0.110 0.0100 0.0004 mg/L 0.10000 0.0029 107 75-125 3 20 Cobatt 0.101 0.0100 0.0004 mg/L 0.10000 ND 101 75-125 3 20 Copper 0.0993 0.0250 0.0004 mg/L 0.10000 ND 99 75-125 2 20 Molybdenum 0.108 0.0010 0.0005 mg/L 0.10000 0.0017 106 75-125 2 20 Nickel 0.101 0.0100 0.0005 mg/L 0.10000 ND 100 75-125 1 20 Selenium 0.103 0.0100 0.0009 mg/L 0.10000 ND	
Calcium 12.9 2.50 0.0628 mg/L 1.0000 12.3 59 75-125 2 20 Chromium 0.110 0.0100 0.0004 mg/L 0.10000 0.0029 107 75-125 3 20 Cobalt 0.101 0.0100 0.0003 mg/L 0.10000 0.0029 107 75-125 3 20 Copper 0.0993 0.0250 0.0004 mg/L 0.10000 ND 101 75-125 3 20 Copper 0.0993 0.0250 0.0004 mg/L 0.10000 ND 99 75-125 2 2 20 Molybdenum 0.108 0.0100 0.0005 mg/L 0.10000 0.001 96 75-125 2 2 20 Molybdenum 0.108 0.0100 0.0005 mg/L 0.10000 0.001 106 75-125 2 2 20 Nokled 0.101 0.0100 0.0005 mg/L 0.10000 0.0017 106 75-125 2 2 20 Nokled 0.101 0.0100 0.0005 mg/L 0.10000 0.0017 106 75-125 2 2 20 Selenium 0.108 0.0100 0.0005 mg/L 0.10000 0.0017 106 75-125 1 20 Selenium 0.100 0.0100 0.0009 mg/L 0.10000 0.0017 107 75-125 1 20 Selver 0.103 0.0100 0.0002 mg/L 0.10000 ND 103 75-125 1 20 Thallium 0.0980 0.0010 0.0002 mg/L 0.10000 ND 103 75-125 1 20 Vanadium 0.104 0.0100 0.0016 mg/L 0.10000 ND 103 75-125 1 20 Vanadium 0.104 0.0100 0.0016 mg/L 0.10000 ND 104 75-125 2 2 20 Vanadium 0.104 0.0100 0.0016 mg/L 0.10000 ND 104 75-125 3 20 Uses Selver 0.115 0.0100 0.0012 mg/L 0.10000 ND 104 75-125 1 20 Use Selver 0.115 0.0100 0.0012 mg/L 0.10000 ND 104 75-125 1 20 Use Selver 0.115 0.0100 0.0012 mg/L 0.10000 ND 104 75-125 1 20 Use Selver 0.115 0.0100 0.0012 mg/L 0.10000 ND 104 80-120 Use Selver 0.115 0.0100 0.0012 mg/L 0.10000 ND 104 80-120 Use Selver 0.115 0.0100 0.0012 mg/L 0.10000 0.0582 95 80-120 Use Selver 0.115 0.0100 0.0012 mg/L 0.10000 0.0582 95 80-120 Use Selver 0.115 0.0100 0.0012 mg/L 0.10000 0.0582 95 80-120 Use Selver 0.115 0.0010 0.0012 mg/L 0.0000 0.0250 97 80-120 Use Selver 0.115 0.0010 0.0012 mg/L 0.1000 0.0582 95 80-120 Use Selver 0.115 0.0010 0.0012 mg/L 0.1000 0.018 98 80-120 Use Selver 0.115 0.0010 0.0012 mg/L 0.1000 0.018 98 80-120 Use Selver 0.115 0.0010 0.0012 mg/L 0.1000 0.018 98 80-120 Use Selver 0.115 0.0010 0.0013 0.0019 0.0019 0.0012 0.001	
Chromium	
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Vanadium 105 ug/L 100.00 0.730 104 80-120	
Zinc 101 ug/L 100.00 3.06 98 80-120	
Lithium 93.1 ug/L 100.00 0.499 93 80-120	



Environmental Monitoring & Laboratory Analysis 110 Technology Parkway, Peachtree Corners, GA 30092

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

PACE ANALYTICAL SERVICES, INC.

July 20, 2016

Attention: Mr. Joju Abraham

Report No.: AZG0286

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070347 - EPA 7470A											
Blank (6070347-BLK1)						Prepar	ed & Anal	yzed: 07/1	8/16		
Mercury	ND	0.00050	0.00013	mg/L							
LCS (6070347-BS1)						Prepar	ed & Anal	yzed: 07/1	8/16		
Mercury	0.00205	0.00050	0.00013	mg/L	2.5000E-3		82	80-120			
Matrix Spike (6070347-MS1)		Sou	ırce: AZG02	86-17		Prepar	ed & Anal	yzed: 07/1	8/16		
Mercury	0.00182	0.00050	0.00013	mg/L	2.5000E-3	ND	73	75-125			QM-05
Matrix Spike Dup (6070347-MSD1)		Sou	ırce: AZG02	86-17		Prepar	ed & Anal	yzed: 07/1	8/16		
Mercury	0.00178	0.00050	0.00013	mg/L	2.5000E-3	ND	71	75-125	2	20	QM-05
Post Spike (6070347-PS1)		Sou	ırce: AZG02	86-17		Prepar	ed & Anal	yzed: 07/1	8/16		
Mercury	1.22			ug/L	1.6667	-0.0299	75	80-120			QM-05



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 20, 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 www.pscelibs.com 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 : FAX (770) 734-4201

PAGE: / OF 3

						1	A CIC INCOLOR		LA LA
Southern	irn le	LOM Dany	0		CONTAINER TYPE	٦	A		P - PLASTIC 1 - HCl, 58°C
CLIENT ADDRE	SS/PHON	E NUMBER	PLEAX	CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	PRESERVATION:	3	7 3	60	A - AMBER GLASS 2 - H ₂ SO ₄₁ s6°C
Atlanta,	SA 33	30308	7	68	5 U				
REPORT TO Abaham	Station	M ON DATE		CC. Heath McCorkle Maria Padilla	0 Z F	othe.		0 2	O - OTHER 6 - Na ₂ S ₂ O ₃ , s6°C 7 - s6°C not frozen
	-		1		- 4 -	20 00 8ds	0	2 2 1	*MATRIX CODES:
Plant Hammond AP	MADE	JAP		GW CCR '	- z u	254	e86 48-	E 00 u	DW - DRINKING WATER S - SOIL AW - WASTEWATER SI - SI IDGE
PROJECT#:					i ac on	a the	m	100	GROUNDWATER SURFACE WATER
Collection	Collection	MATRIX	003	SAMPLE IDENTIFICATION	_	D2			- STORM WATER - WATER
		2000			•		8	+	REMARKS/ADDITIONAL INFORMATION
1 4/2/21/7	00.41	3	>	FB-1	3	-	-,	/	
7/12/201 14:15	4.15	3	>		3	-		8	1
7/12/Dave 0	40:60	Gw	-	H6WA-3	3	-	-	3	
412/2010 13:55	3.55	600	>	HGWC-14	8	-	-	4	
7/12/2016 11	10:30	Gw	-	H6WL-7	3	-		2	
7/12/2016 11	14:30	6w	-	V HGWC-16	3	-	_	9	
A12/2010 12:20	2:30	600		V H6WC+13	100	-	_	7	,
1 des 21 2	10:40	Gw	-	V H6WC-8	B	-	1		
12	2:35	Con	>	H6WC-15	10	-	-	0	
7/2/201 P	11:21	Com	-	V HGWC-10	2	1 1		0)	
7 12,006	1	bu	>	DUP-2	3	1 1	1	//	
1 apprile	16:00	3		/ FERB-3	3	1 1	1	13	
RECEIVED BY:	ND TITLE	1st		DATE/TIME 10:45		INDOISHED BY:		DATE/TIME: 08:12	LAB#: A 2 40 8 86
RECEIVED BY	my my	an	1	DATETINE /16 0815	SAMPLES	IPPED VIA:	ASPS COURIER	CLIENT OTHER FS	Tracking #:
Wort phecked:		logo.	and and	Temperature: 1	Custody Seal:	NIN	# of Coolers	Cooler ID:	

8

OF

8

PAGE:

Pace Analytical Pre

HAIN OF CUSTODY RECORD

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

5 - NaOH/ZnAc, s6°C 7 - s6°C not frozen 6 - Na₂S₂O₃, s6°C REMARKS/ADDITIONAL INFORMATION 8 2- H2504, 46"C 4 - NaOH, 56°C P. PRODUCT PRESERVATION 1 - HCI, 56°C SLUDGE SL - SLUDGE SD - SOLID L- LIQUID 3 - HNO3 A- AIR FOR LAB USE ONLY *MATRIX CODES: DRINKING WATER SURFACE WATER GROUNDWATER STORM WATER WASTEWATER A - AMBER GLASS G - CLEAR GLASS CONTAINER TYPE Entered into LIMS: V - VOA VIAL P - PLASTIC S - STERILE O - OTHER racking # LAB#: ST. SW. GW. - MM 4 4 5 2 0 BAL -0 Z D E O W C 18:15 55 OTHER DATE/TIME: Booler ANALYSIS REQUESTED COURIER # of Coolers 105.5m Ra-5w Ra-5w 948-MS 33 SPS \$ 000 to 3 OCE +43 SAMPLE SHIPPED VIA: 43 RELINOMISHED BY: Othe RELINQUISHED BY FED-EX STOTOW CNTABLER TYPE Justody Seal. # of NPS UOZ 4 ⋖ -ZMKG 0 3 W 3 oc. Heath Miclor Kle SAMPLE IDENTIFICATION 90 16:45 0 244 Ralph McGill Blod. 8 810185 H6WC-17 H6WC-18 HGW6-12 H 5WC-11 460C9 FERB-1 DATE/TIME: LOMPANY SERVIUS Maria PO# Dup-1 > 0 2 4 0 30308 00 20 EQUESTED COMPLETION DATE: MATRIX Su an SE Hammind CODE Sec Gue GE (sw Abraham 3 Attacka, Cr B TITLE: 112 8014 15.31 ROJECT NAME/STATE: Collection 12/20111:35 15:50 10.05 Southern 12 20/06/3:30 AMPLED BY AND Plant ROJECT# ED BY: JENT NAME + 12404 112 211 12 2010 Collection DATE

COC Revised 2016-05-17.xlsx



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

LOG-IN CHECKLIST

Printed: 7/20/2016 5:17:20PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Work Order: AZG0286 **Project:** CCR Event

Date Received: 07/13/16 08:15 Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 19 **#Containers:** 58

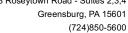
Minimum Temp(\mathbf{C}): 1.0 **Maximum Temp(C):** 1.0 Custody Seal(s) Used: Yes

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:







August 16, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond AP GW CCR

Pace Project No.: 30189722

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on July 14, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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

Legalylellin

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

Plant Hammond AP GW CCR Project:

Pace Project No.: 30189722

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

(724)850-5600



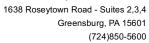
SAMPLE SUMMARY

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189722

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30189722001	FB-1	Water	07/12/16 14:00	07/14/16 10:00
30189722002	FB-2	Water	07/12/16 14:15	07/14/16 10:00
30189722003	HGWA-3	Water	07/12/16 09:24	07/14/16 10:00
30189722004	HGWC-14	Water	07/12/16 13:55	07/14/16 10:00
30189722005	HGWC-7	Water	07/12/16 10:20	07/14/16 10:00
30189722006	HGWC-16	Water	07/12/16 14:30	07/14/16 10:00
30189722007	HGWC-13	Water	07/12/16 12:20	07/14/16 10:00
30189722008	HGWC-8	Water	07/12/16 10:40	07/14/16 10:00
30189722009	HGWC-15	Water	07/12/16 12:35	07/14/16 10:00
30189722010	HGWC-10	Water	07/12/16 11:21	07/14/16 10:00
30189722011	DUP-2	Water	07/12/16 00:01	07/14/16 10:00
30189722012	FERB-2	Water	07/12/16 16:00	07/14/16 10:00
30189722013	FERB-1	Water	07/12/16 15:50	07/14/16 10:00
30189722014	HGWC-9	Water	07/12/16 10:05	07/14/16 10:00
30189722015	DUP-1	Water	07/12/16 00:01	07/14/16 10:00
30189722016	HGWC-11	Water	07/12/16 11:35	07/14/16 10:00
30189722017	HGWC-12	Water	07/12/16 12:30	07/14/16 10:00
30189722018	HGWC-17	Water	07/12/16 15:04	07/14/16 10:00
30189722019	HGWC-18	Water	07/12/16 15:21	07/14/16 10:00

REPORT OF LABORATORY ANALYSIS





SAMPLE ANALYTE COUNT

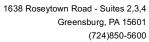
Project: Plant Hammond AP GW CCR

Pace Project No.: 30189722

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30189722001		EPA 9315		1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722002	FB-2	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722003	HGWA-3	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722004	HGWC-14	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722005	HGWC-7	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722006	HGWC-16	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722007	HGWC-13	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722008	HGWC-8	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722009	HGWC-15	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722010	HGWC-10	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722011	DUP-2	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722012	FERB-2	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722013	FERB-1	EPA 9315	JAL	1

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189722

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722014	HGWC-9	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722015	DUP-1	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722016	HGWC-11	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722017	HGWC-12	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722018	HGWC-17	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189722019	HGWC-18	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS - RADIOCHEMISTRY

Plant Hammond AP GW CCR Project:

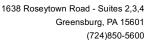
Pace Project No.: 30189722

Lab ID: 30189722001 Sample: FB-1 Collected: 07/12/16 14:00 Received: 07/14/16 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 0.137 ± 0.123 (0.235) Radium-226 08/14/16 13:58 13982-63-3 pCi/L C:95% T:NA Radium-228 EPA 9320 0.401 + 0.385(0.768)pCi/L 08/09/16 02:08 15262-20-1 C:69% T:77% Total Radium Total Radium 0.538 ± 0.508 (1.00) pCi/L 08/15/16 14:32 7440-14-4 Calculation Sample: FB-2 Lab ID: 30189722002 Collected: 07/12/16 14:15 Received: 07/14/16 10:00 Matrix: Water PWS: Site ID: Sample Type: Act ± Unc (MDC) Carr Trac **Parameters** Method Units Analyzed CAS No. Qual EPA 9315 0.209 ± 0.151 (0.275) Radium-226 pCi/L 08/14/16 13:58 13982-63-3 C:95% T:NA EPA 9320 0.863 ± 0.388 (0.628) Radium-228 08/09/16 02:08 15262-20-1 pCi/L C:75% T:77% Total Radium Total Radium 1.07 ± 0.539 (0.903) pCi/L 08/15/16 14:32 7440-14-4 Calculation Sample: HGWA-3 Lab ID: 30189722003 Collected: 07/12/16 09:24 Received: 07/14/16 10:00 PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed 0.000983 ± 0.0570 (0.160) Radium-226 EPA 9315 pCi/L 08/14/16 16:52 13982-63-3 C:92% T:NA Radium-228 EPA 9320 0.498 ± 0.288 (0.505)pCi/L 08/09/16 02:08 15262-20-1 C:74% T:87% Total Radium Total Radium $0.499 \pm 0.345 \quad (0.665)$ pCi/L 08/15/16 14:32 7440-14-4 Calculation Sample: HGWC-14 Lab ID: 30189722004 Collected: 07/12/16 13:55 Received: 07/14/16 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 0.526 ± 0.201 (0.257) Radium-226 pCi/L 08/14/16 16:52 13982-63-3 C:99% T:NA EPA 9320 Radium-228 0.784 ± 0.351 (0.569)08/09/16 02:09 15262-20-1 pCi/L C:76% T:84% Total Radium Total Radium 1.31 ± 0.552 (0.826) pCi/L 08/15/16 14:32 7440-14-4 Calculation Sample: HGWC-7 Collected: 07/12/16 10:20 Lab ID: 30189722005 Received: 07/14/16 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 0.159 ± 0.128 (0.224) Radium-226 pCi/L 08/14/16 16:53 13982-63-3 C:73% T:NA FPA 9320 0.124 ± 0.255 Radium-228 (0.563)pCi/L 08/10/16 11:54 15262-20-1

REPORT OF LABORATORY ANALYSIS

C:85% T:84%

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Plant Hammond AP GW CCR Project:

Pace Project No.: 30189722

Sample: HGWC-7 Collected: 07/12/16 10:20 Received: 07/14/16 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Total Radium Total Radium $0.283 \pm 0.383 \quad (0.787)$ pCi/L 08/15/16 14:32 7440-14-4 Calculation

Lab ID: 30189722005

Sample: HGWC-16 Lab ID: 30189722006 Collected: 07/12/16 14:30 Received: 07/14/16 10:00 PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 0.0608 ± 0.100 (0.223) Radium-226 08/14/16 16:53 13982-63-3 pCi/L C:92% T:NA Radium-228 EPA 9320 0.121 ± 0.266 (0.591)pCi/L 08/10/16 11:54 15262-20-1 C:78% T:85% Total Radium Total Radium $0.182 \pm 0.366 \quad (0.814)$ pCi/L 08/15/16 14:32 7440-14-4 Calculation

Sample: HGWC-13 Lab ID: 30189722007 Collected: 07/12/16 12:20 Received: 07/14/16 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual 0.145 ± 0.138 (0.268) EPA 9315 Radium-226 08/14/16 16:53 13982-63-3 pCi/L C:75% T:NA EPA 9320 Radium-228 $0.333 \pm 0.334 \quad (0.686)$ pCi/L 08/10/16 11:54 15262-20-1 C:76% T:81% Total Radium Total Radium $0.478 \pm 0.472 \quad (0.954)$ pCi/L 08/15/16 14:32 7440-14-4 Calculation

Sample: HGWC-8 PWS:	Lab ID: 30189 Site ID:	722008 Collected: 07/12/16 10:40 Sample Type:	Received:	07/14/16 10:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.178 ± 0.112 (0.172) C:100% T:NA	pCi/L	08/14/16 16:53	3 13982-63-3	
Radium-228	EPA 9320	0.458 ± 0.307 (0.577) C:75% T:90%	pCi/L	08/10/16 11:54	15262-20-1	
Total Radium	Total Radium Calculation	0.636 ± 0.419 (0.749)	pCi/L	08/15/16 14:32	2 7440-14-4	

Sample: HGWC-15 PWS:	Lab ID: 30189722009 Site ID: Method Act		Collected: 07/12/16 12:35 Sample Type:	Received:	07/14/16 10:00	Matrix: Water		
Parameters			t ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual	
Radium-226	EPA 9315	0.0764 ± 0.113 (0.246) C:93% T:NA		pCi/L	08/14/16 16:53	13982-63-3		
Radium-228	EPA 9320	0.535	5 ± 0.306 (0.536) % T:87%	pCi/L	08/10/16 11:54	15262-20-1		
Total Radium	Total Radium Calculation		± 0.419 (0.782)	pCi/L	08/15/16 14:32	2 7440-14-4		

REPORT OF LABORATORY ANALYSIS



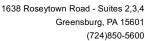
ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189722

Pace Project No.: 30189722	2					
Sample: HGWC-10	Lab ID: 30189		Received:	07/14/16 10:00 Mate	rix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.192 ± 0.126 (0.205)	pCi/L	08/14/16 16:53 1:	3982-63-3	
Radium-228	EPA 9320	C:91% T:NA 0.663 ± 0.325 (0.543) C:80% T:89%	pCi/L	08/10/16 11:55 1	5262-20-1	
Total Radium	Total Radium Calculation	0.855 ± 0.451 (0.748)	pCi/L	08/15/16 14:32 74	440-14-4	
Sample: DUP-2	Lab ID: 30189		Received:	07/14/16 10:00 Mate	rix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0238 ± 0.0789 (0.193)	pCi/L	08/14/16 16:53 1:	3982-63-3	
Radium-228	EPA 9320	C:99% T:NA 0.525 ± 0.354 (0.673) C:78% T:83%	pCi/L	08/10/16 11:55 1	5262-20-1	
Total Radium	Total Radium Calculation	$0.549 \pm 0.433 (0.866)$	pCi/L	08/15/16 14:32 74	440-14-4	
Sample: FERB-2 PWS:	Lab ID: 30189 Site ID:	722012 Collected: 07/12/16 16:00 Sample Type:	Received:	07/14/16 10:00 Mate	rix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0935 ± 0.0931 (0.175) C:95% T:NA	pCi/L	08/14/16 16:53 1	3982-63-3	
Radium-228	EPA 9320	0.504 ± 0.326 (0.605) C:77% T:83%	pCi/L	08/10/16 11:55 1	5262-20-1	
Total Radium	Total Radium Calculation	0.598 ± 0.419 (0.780)	pCi/L	08/15/16 14:32 74	440-14-4	
Sample: FERB-1 PWS:	Lab ID: 30189 Site ID:	722013 Collected: 07/12/16 15:50 Sample Type:	Received:	07/14/16 10:00 Mate	rix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.155 ± 0.121 (0.215) C:97% T:NA	pCi/L	08/14/16 16:53	3982-63-3	
Radium-228	EPA 9320	0.125 ± 0.252 (0.558) C:77% T:82%	pCi/L	08/10/16 11:55 1	5262-20-1	
Total Radium	Total Radium Calculation	$0.280 \pm 0.373 (0.773)$	pCi/L	08/15/16 14:32 74	440-14-4	
Sample: HGWC-9 PWS:	Lab ID: 30189 Site ID:	722014 Collected: 07/12/16 10:05 Sample Type:	Received:	07/14/16 10:00 Mate	rix: Water	
	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzad	CASNo	Ougl
Parameters Padium 226	EPA 9315	0.131 ± 0.114 (0.208)		Analyzed	CAS No.	Qual
Radium-226 Radium-228	EPA 9320	0.131 ± 0.114 (0.206) C:88% T:NA 0.380 ± 0.293 (0.570) C:80% T:86%	pCi/L pCi/L	08/14/16 16:54 1: 08/10/16 11:55 1:		

REPORT OF LABORATORY ANALYSIS



Matrix: Water



ANALYTICAL RESULTS - RADIOCHEMISTRY

Sample Type:

Collected: 07/12/16 10:05

Received: 07/14/16 10:00

pCi/L

pCi/L

08/14/16 16:54 13982-63-3

08/15/16 14:32 7440-14-4

Lab ID: 30189722014

Site ID:

EPA 9315

Total Radium

Calculation

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189722

Sample: HGWC-9

PWS:

Radium-226

Total Radium

Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Total Radium Total Radium $0.511 \pm 0.407 \quad (0.778)$ pCi/L 08/15/16 14:32 7440-14-4 Calculation Sample: DUP-1 Lab ID: 30189722015 Collected: 07/12/16 00:01 Received: 07/14/16 10:00 PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 0.241 ± 0.132 (0.192) Radium-226 08/14/16 16:54 13982-63-3 pCi/L C:95% T:NA Radium-228 EPA 9320 0.425 ± 0.314 (0.604)pCi/L 08/10/16 11:55 15262-20-1 C:78% T:84% Total Radium Total Radium $0.666 \pm 0.446 \quad (0.796)$ pCi/L 08/15/16 14:32 7440-14-4 Calculation Sample: HGWC-11 Lab ID: 30189722016 Collected: 07/12/16 11:35 Received: 07/14/16 10:00 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual 0.0873 ± 0.103 (0.213) EPA 9315 Radium-226 08/14/16 16:54 13982-63-3 pCi/L C:95% T:NA EPA 9320 $0.697 \pm 0.388 \quad (0.702)$ Radium-228 pCi/L 08/10/16 11:55 15262-20-1 C:74% T:89% Total Radium Total Radium $0.784 \pm 0.491 \quad (0.915)$ pCi/L 08/15/16 14:32 7440-14-4 Calculation Collected: 07/12/16 12:30 Received: 07/14/16 10:00 Sample: HGWC-12 Lab ID: 30189722017 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual

Radium-228	EPA 9320	C:94% T:NA 1.20 ± 0.430 (0.605) C:80% T:87%	pCi/L	08/10/16 11:55		
Total Radium	Total Radium Calculation	1.61 ± 0.609 (0.848)	pCi/L	08/15/16 14:32	2 7440-14-4	
Sample: HGWC-17 PWS:	Lab ID: 3018 Site ID:	9722018 Collected: 07/12/16 15:04 Sample Type:	Received:	07/14/16 10:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.180 ± 0.123 (0.208) C:95% T:NA	pCi/L	08/14/16 16:54	13982-63-3	
Radium-228	EPA 9320	0.687 ± 0.338 (0.569) C:74% T:94%	pCi/L	08/10/16 11:55	5 15262-20-1	

 $0.406 \pm 0.179 \quad (0.243)$

REPORT OF LABORATORY ANALYSIS

 $0.867 \pm 0.461 \quad (0.777)$



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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189722

Sample: HGWC-18 PWS:	Lab ID: 301897 Site ID:		Collected: 07/12/16 15:21 Sample Type:	Received:	07/14/16 10:00	Matrix: Water	
Parameters	Method	Act	± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226 EPA 9315		0.619 : C:95%	± 0.208 (0.216) T:NA	pCi/L	08/14/16 16:54	13982-63-3	
Radium-228	EPA 9320		0.442 (0.662) 5 T:84%	pCi/L	08/10/16 11:55	15262-20-1	
Total Radium	Total Radium Calculation	1.76 ±	0.650 (0.878)	pCi/L	08/15/16 14:32	2 7440-14-4	





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QUALITY CONTROL - RADIOCHEMISTRY

Plant Hammond AP GW CCR Project:

Pace Project No.: 30189722

QC Batch: 227859 Analysis Method: EPA 9320 QC Batch Method: EPA 9320 9320 Radium 228 Analysis Description:

Associated Lab Samples:

30189722012, 30189722013, 30189722014, 30189722015, 30189722016, 30189722017, 30189722018,

30189722019

METHOD BLANK: 1116128 Matrix: Water

Associated Lab Samples:

30189722005, 30189722016, 30189722017, 30189722018, 30189722019, 30189722010, 30189722011, 30189722012, 30189722013, 30189722014, 30189722015, 30189722016, 30189722017, 30189722018, 3018972018, 30189722018, 30189722018, 30189722018, 30189722018, 3018972018,

30189722019

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers Radium-228 0.218 ± 0.257 (0.540) C:84% T:95% 08/10/16 11:54 pCi/L

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.





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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189722

QC Batch: 227858 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30189722001, 30189722002, 30189722003, 30189722004

METHOD BLANK: 1116127 Matrix: Water

Associated Lab Samples: 30189722001, 30189722002, 30189722003, 30189722004

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.524 ± 0.378 (0.726) C:74% T:84%
 pCi/L
 08/08/16 21:20

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





QUALITY CONTROL - RADIOCHEMISTRY

Plant Hammond AP GW CCR Project:

Pace Project No.: 30189722

QC Batch: 229106 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 9315 Total Radium Analysis Description:

Associated Lab Samples: 30189722008, 30189722009, 30189722010, 30189722011, 30189722012, 30189722013, 30189722014, 30189722015, 30189722016, 30189722017, 30189722018, 30189722019

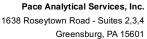
METHOD BLANK: 1122751 Matrix: Water

Associated Lab Samples:

30189722001, 30189722002, 30189722003, 30189722004, 30189722005, 30189722006, 30189722007, 30189722008, 30189722009, 30189722010, 30189722011, 30189722012, 30189722013, 30189722014, 30189722015, 30189722016, 30189722017, 30189722018, 30189722019

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers Radium-226 0.0309 ± 0.0993 (0.238) C:95% T:NA 08/14/16 13:58 pCi/L

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.



(724)850-5600



QUALIFIERS

Project: Plant Hammond AP GW CCR

Pace Project No.: 30189722

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

Date: 08/16/2016 04:24 PM

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#:30189722

CHAIN OF CUSTODY RECORD

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



CLENT NAME:		ANALYSIS REQUESTED	L CONTAINER TYPE PRESERVATION
Southern Company	Prices	CONTANUER TYPE: P P P P P	
CLIENT ADDRESS/PHONE NUMBER/FAX	(NUMBER:	PRESERVATION: 3 7 3	A - AMBER GLASS
841 Ralph McGill Blud	t. <i>SF Bidi</i> es	H	
Atarta 64 30308	1		V - VOA VIAL 4 - NaOH, ≤6°C
7	404-506-7239		S - STERILE
REPORT TO:	CC: HESTH M. CONKIE		D 0 - OTHER 6 - Na ₂ S ₂ O ₃ , ≤6°C
Joju Horanam	Marla Packilla		7 - ≤6°C not frozen
REQUESTED COMPLETION DATE:	PO #:	de Ho	N TOOOCIAN **
PRO JECT NAME/STATE:		28 19 FI	WALKIA CODES
607		T +	DW - DRINKING WATER
Plant Hammond HF G	GW ししま	. fq . c	WW. WASTEWATER
PROJECT#:		<u>ት</u> ተነር ጉድር	R GW - GROUNDWATER SD - SOLID CM CHIDEACE MATED A AID
H		5 5)	SUNTACE WALLEY
n Collection MATRIX 0	SAMPLE IDENTIFICATION	186	WATER
DATE TIME CODE* M A		17	REMARKS/ADDITIONAL INFORMATION
W 90/4/ alox/21/7	V FB-1	3 1 1 5	100
	V FB-3		200
12/20 09:24 GW	1 46WA-3	~~~	3
13.55 (40)	V HGWC-14		4
, Gw	4-7M9H V	3	805
(mg	J 46WC-16	3 1 1 5	900
4/2/2016 13:20 6W	V H6WC-13	2	7 007
Z	V H6WC-8	3	800
(L)	V HEWC-15	3 1 1 1 1	900
Jan 11:21 (m)	V HGW6-10	3 1 1 1 1 2	010
V Wed - Dracks	1 DUP-2	3 1 1 1	11 OU
1 6:00 W	VFERB-3	3 1 1 1 2	210
SAMPLED BY AND TITLE:	DATE/JIME: 16:45	RELINGUALED BY: DATE: UNITED BY:	8.12 LAB#: FOR LAB USE ONLY
RECEIVED BY: " " " " " " " " " " " " " " " " " " "	1000	RELINCKUISHED BY: DATE/TIME:	Entered into LIMS:
RECEIVED BY LATE	- DATIME 1/6 08/15	0815 ISAMPLE SHIPPED VIA: COURIER (CLIENT OTHER	Tracking #:
pH. becked: No NA Kes No NA	Temperature: \	Custody Seal: K/A/ # of Coolers Cooler ID:	
	۲	ı	

COC Revised 2016-05-17.xlsx

CHAIN OF CUSTODY RECORD

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

П Ь B PAGE:

CLIENT NAME:	AINAL YSIS KEKUES I ED		뷥
Jouthern Company Dervices	Ċ	A P-P	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	PRESERVATION: 3 7 3		
24 Ralph McGill Tala Sy Rision	,	0-0	G - CLEAR GLASS 3 - HNO,
		N-N	
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To in Abraham Moria Padilla	<i>ት</i> -		7 - <6°C not frozen
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PROJECT NAME/STATE:	ショ		
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Plant Hammond At ow CCK	2 (1 2 (1 2 (1 2 (1	- - - - - - - - - - - - -	
PROJECT #:	e m vz.	- 00 00 00 00 00 00 00 00 00 00 00 00 00	GROUNDWATER SD SOLID
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7/12/2014 15:50 W VFERB-1	1 1 1	62	0/3
2/12/2010 10'05 (TA) V 46W1-9	3	*	4/0
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12/2010 15:31 GW		6	610
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DATE/TIME:	RELINQUISHED BY:	DATE/TIME: Entered	Entered into LIMS:
Ritinan OFF/15/16 OSIS	SAMPLE SHIPPED VIA: COURIER /	CLENT OTHER FS Tracking #:	
ked: Ice No NA Teer) No NA Temperature: No NA Max.	/ ent	Gobier ID:	
	COC Revised 2016-05-17 xlsx		

COC Revised 2016-05-17.xisx

Sample Condition Upon Recei	pt Pi	ttsbi	urgh /) (A	3018972
Pace Analytical Client Name:	5001	hev	<u>^</u>	ace GA ompany service	
Courier: Fed Ex UPS USPS Client				Pace Other	· <u>·</u>
Custody Seal on Cooler/Box Present: 🔲 yes	☐ ' r				no
Thermometer Used	Туре	of Ice:	Wet	Blue None	°C = IT NIA °C
Cooler Temperature Observed Temp N	A	° C	Corre	ection Factor: NIA	°C Final Temp: NIA °C
Temp should be above freezing to 6°C					Date and Initials of person examining contents:
			1 5 (6	1	contents: A 7/14/16
Comments:	Yes	No	N/A		<u> </u>
Chain of Custody Present:				1	
Chain of Custody Filled Out:	<u> </u>		<u> </u>	2.	
Chain of Custody Relinquished:	/			3.	
Sampler Name & Signature on COC:	/	<u> </u>		4	
Sample Labels match COC:			<u> </u>	5.	
-Includes date/time/ID/Analysis Matrix: W	}		,		
Samples Arrived within Hold Time:	1			6.	
Short Hold Time Analysis (<72hr remaining):	/		<u> </u>	7	
Rush Turn Around Time Requested:		1		8.	
Sufficient Volume:	/			9.	
Correct Containers Used:	./			10.	
-Pace Containers Used:		1			
	1			11.	
Containers Intact: Filtered volume received for Dissolved tests			/	12.	
All containers needing preservation have been checked.	/		·	13.	
				1	
All containers needing preservation are found to be in compliance with EPA recommendation.		<u> </u>			
				Initial when completed	Date/time of preservation
exceptions: VOA, coliform, TOC, O&G, Phenolics				Lot # of added	
				preservative	
Headspace in VOA Vials (>6mm):			\ <u>\</u>	14.	
Trip Blank Present:	<u></u>		/	15.	
Trip Blank Custody Seals Present	<u> </u>				
Client Notification/ Resolution:			*******		
Person Contacted:			Date/	Time:	Contacted By:
Comments/ Resolution:			_		
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)

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Ra-228 Test:

Pace Analytical

Quality Control Sample Performance Assessment

JLW 8/3/2016	30598	ΔM		1116128	0.218	0.254	0.540	1.68	A/A	Pass
Analyst Date:	Worklist:	Matrix:	Method Blank Assessment	UB Sample ID	MB concentration:	M/B Counting Uncertainty:	MB MDC:	MB Numerical Performance Indicator:	MB Status vs Numerical Indicator:	MB Status vs. MDC:

Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:

Sample Collection Date:

Sample Matrix Spike Control Assessment

Spike Volume Used in MS (mL):

Laboratory Control Sample Ass

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Spine voluite Osed it MG (IIIL).	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:
						>	L.CSD30598	8/10/2016	16-025	25.974	0.20	0.812	6.394	0.460	6.010	0.678	-0.92	94.00%	A/A	Pass
407.0	0.540	1.68	N/A	Pass		LCSD (Y or N)?	LCS30598	8/10/2016	16-025	25.974	0.20	0.802	6,480	0.467	6,626	0.705	0.34	102.26%	N/A	Pass
ייוים ככטוווווק סווכפו ומווויץ.	MB MDC:	MB Numerical Performance Indicator:	MB Status vs Numerical Indicator:	MB Status vs. MDC:		ol Sample Assessment		Count Date:	Spike I.D.:	Spike Concentration (pCi/mL):	Volume Used (mL):	Aliquot Volume (L, g, F):	Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCI/L, g, F):	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	Numerical Performance Indicator:	Percent Recovery:	Status vs Numerical Indicator:	Status vs Recovery:

Paramoninantonial Chinaintonia and Alberta Minaintonial William William Committee Committee Committee Committee

Duplicate Sample Assessment			Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:	LCS30598	Enter Duplicate	Sample
Duplicate Sample I.D.	LCSD30598	sample IDs if	Sample MS
Sample Result (pCi/L, g, F):	6.626	other than	Sample MSD
Sample Result Counting Uncertainty (pC//L, g, F):	0.705	LCS/LCSD in	Sample Matrix Spike Re
Sample Duplicate Result (pCi/L, g, F):	6.010	the space below.	Matrix Spike Result Counting Uncertainty (pCl/L, g
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.678		Sample Matrix Spike Duplicate Re
Are sample and/or duplicate results below MDC?	9		Matrix Spike Duplicate Result Counting Uncertainty (pCI/L, g
Duplicate Numerical Performance Indicator;	1.235		Duplicate Numerical Performance Indic
Duplicate RPD:	9.76%		MS/ MSD Duplicate F
Duplicate Status vs Numerical Indicator:	N/A		MS/ MSD Duplicate Status vs Numerical Indic
Duplicate Status vs RPD:	Pass		MS/ MSD Duplicate Status vs F

Comments:

(Nr 2119 (1)

Ra_228_30598_W.xls Ra-228 (R086-6 17Jul2016).xls

1 of 1

Quality Control Sample Performance Assessment

JLW

Face Analytical

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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:

3/3/2016 30597 Analyst: Date: Worklist: Matrix:

Sample Matrix Spike Control Assessment

MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC

Method Blank Assessment

0.524 0.366 0.726 2.81 N/A Pass MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC:

Laboratory Control Sample Assessment

LCSD30597 8/8/2016 16-025 25.987 0.20 0.814 6.383 0.460 4.658 0.578 LCS30597 8/8/2016 16-025 25.987 0.20 0.805 6.455 0.465 6.146 0.602 -0.80 Count Date: Spike I.D.: Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated): Spike Concentration (pCi/mL): Volume Used (mL):

Matrix Spike Result Counting Uncertainty (pCi/l., g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MSD Numerical Performance Indicator: MS Percent Recovery:

MSD Percent Recovery:

MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:

MSD Status vs Recovery: MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Duplicate Sample Assessment

MS Numerical Performance Indicator:

- Sillindrich abeliebile - Personal and a second color of the color of

-4.55 73.13% N/A Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Numerical Performance Indicator: Percent Recovery: Status vs Numerical Indicator: Status vs Recovery Enter Duplicate sample IDs if other than LCS/LCSD in the space below. LCS30597 LCSD30597 6.146 0.602 4.668 0.578 NO Sample Result (pctift, g, F):
Sample Result Counting Uncertainty (pctift, g, F):
Sample Duplicate Result (pctift, g, F):
Sample Duplicate Result Counting Uncertainty (pctift, g, F):
Are sample and/or duplicate results below MDC? Sample t.D.: Duplicate Sample I.D.

Sample I.D. Sample MS I.D. Sample MSD I.D.

Sample Matrix Spike Result:

3.468 27.33% N/A Pass Duplicate Numerical Performance Indicator: Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD

Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result Counting Uncertainty (PCII), 9, F).

Duplicate Numerical Performance Indicator: Sample Matrix Spike Duplicate Result: 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.

MS/ MSD Duplicate RPD:

9)) SI /RM)

Ra_228_30597_W.xls Ra-228 (R086-6 17Jul2016).xls

1 of 1

Ra-228 NELAC DW2 Printed: 8/15/2016 3:07 PM

Comments:

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow

Sample I.D. Sample MS I.D.

Sample MSD I.D. Spike I.D.:

Sample Collection Date:

MS Aliquot (L, g, F): MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F):

Sample Result:

Sample Matrix Spike Result:

Spike Volume Used in MS (mL):

Spike Volume Used in MSD (mL):

MS/MSD Decay Corrected Spike Concentration (pCl/mL):

Sample Matrix Spike Control Assessment 8/9/2016 Æ

Test:

Face Analytical"

Date: Worklist: Matrix: Analyst

0.099 0.238 0.61 N/A Pass M/B Counting Uncertainty: MB MDC; MB Sample ID MB concentration: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC:

Method Blank Assessment

ECS30777 Laboratory Control Sample Assessment

Matrix Spike Duplicate Result Counting Uncertainty (pCl/L, g, F):

MS Numerical Performance Indicator: MSD Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery: MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated): Sample Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: MSD Numerical Performance Indicator: LCSD30777 8/14/2016 16-026 44.679 0.10 0.507 8.816 0.415 6.958 -5.07

Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated):

Spike Concentration (pCi/mL): Volume Used (mL):

Count Date Spike I.D. Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F):

Percent Recovery:

Status vs Numerical Indicator

Status vs Recovery

Duplicate Sample Assessmen

Numerical Performance Indicator:

MS Percent Recovery:

MSD Percent Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Sample MSD I.D.

.CS/LCSD in the

space below

0.104 0.475 0.167

Sample I.D.:

Duplicate Sample I.D.

Sample Result (Colf., g, F):

Sample Result Counting Uncertainty (pCif., g, F):

Sample Duplicate Result (pCif., g, F):

See Below ##

Are sample and/or duplicate results below MDC?

Duplicate Numerical Performance Indicator:

134.84%

Duplicate RPD:

K

-3.816

Enter Duplicate sample iDs if other than

30189588006DUP

30189588006

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Duplicate Numerical Performance Indicator:

MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator; MS/ MSD Duplicate Status vs RPD:

Daugle roult

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

Duplicate Status vs RPD:

Duplicate Status vs Numerical Indicator

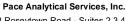
Providence and the contract of the contract of the contract of

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

1 of 1

TAR_30777_W.xls Total Alpha Radium (R104-2 17Mar2014).xls

Printed: 8/15/2016 3:22 PM TAR DW QC





July 26, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Hammond CCR

Pace Project No.: 30187991

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 28, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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

Sugarly Cellins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures



Pace Analytical Services, Inc.

Pace Analytical *

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

CERTIFICATIONS

Project: Hammond CCR
Pace Project No.: 30187991

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

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: 90133

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

North Dakota Certification #. K-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.

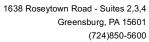
Pace Analytical *

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

SAMPLE SUMMARY

Project: Hammond CCR
Pace Project No.: 30187991

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187991001	HGWA-1	Water	05/19/16 09:30	06/28/16 10:30
30187991002	HGWA-2	Water	05/19/16 11:26	06/28/16 10:30
30187991003	HGWA-4	Water	05/19/16 17:37	06/28/16 10:30
30187991004	HGWA-3	Water	05/19/16 16:05	06/28/16 10:30
30187991005	DUP-1	Water	05/19/16 00:01	06/28/16 10:30
30187991006	HGWA-5	Water	05/19/16 10:27	06/28/16 10:30





SAMPLE ANALYTE COUNT

Project: Hammond CCR
Pace Project No.: 30187991

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187991001	HGWA-1	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187991002	HGWA-2	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187991003	HGWA-4	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187991004	HGWA-3	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187991005	DUP-1	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187991006	HGWA-5	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

Matrix: Water

CAS No.

Qual

Analyzed



Hammond CCR

Project:

Radium-228

ANALYTICAL RESULTS - RADIOCHEMISTRY

Pace Project No.: 30187991 Sample: HGWA-1 Lab ID: 30187991001 Collected: 05/19/16 09:30 Received: 06/28/16 10:30 PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units EPA 9315 -0.0205 ± 0.0409 (0.124) Radium-226 07/24/16 14:47 13982-63-3 pCi/L C:93% T:NA

Radium-228 EPA 9320 $0.417 \pm 0.374 \quad (0.764)$ pCi/L 07/25/16 16:52 15262-20-1 C:86% T:89% Total Radium Total Radium 0.397 ± 0.415 (0.888) pCi/L 07/26/16 14:48 7440-14-4 Calculation

Sample: HGWA-2 Lab ID: 30187991002 Collected: 05/19/16 11:26 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: Act ± Unc (MDC) Carr Trac **Parameters** Method Units Analyzed CAS No. Qual EPA 9315 $0.178 \pm 0.0949 \quad (0.141)$ Radium-226 pCi/L 07/24/16 14:47 13982-63-3 C:92% T:NA EPA 9320 $0.449 \pm 0.335 \quad (0.659)$ Radium-228 07/25/16 16:52 15262-20-1 pCi/L C:90% T:87% Total Radium Total Radium $0.627 \pm 0.430 \quad (0.800)$ pCi/L 07/26/16 14:48 7440-14-4 Calculation

Sample: HGWA-4 Lab ID: 30187991003 Collected: 05/19/16 17:37 Received: 06/28/16 10:30 PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed 0.0703 ± 0.110 (0.243) Radium-226 EPA 9315 pCi/L 07/25/16 07:49 13982-63-3 C:95% T:NA Radium-228 EPA 9320 0.592 ± 0.366 (0.682)pCi/L 07/25/16 16:52 15262-20-1 C:84% T:84% Total Radium Total Radium $0.662 \pm 0.476 \quad (0.925)$ pCi/L 07/26/16 14:48 7440-14-4 Calculation

Sample: HGWA-3 Lab ID: 30187991004 Collected: 05/19/16 16:05 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 0.130 ± 0.112 (0.202) Radium-226 pCi/L 07/25/16 07:49 13982-63-3 C:95% T:NA EPA 9320 Radium-228 0.212 ± 0.272 07/25/16 16:52 15262-20-1 pCi/L C:87% T:88% Total Radium Total Radium $0.342 \pm 0.384 \quad (0.778)$ pCi/L 07/26/16 14:48 7440-14-4

Collected: 05/19/16 00:01 Sample: DUP-1 Lab ID: 30187991005 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: Act ± Unc (MDC) Carr Trac **Parameters** Method Units Analyzed CAS No. Qual EPA 9315 $0.0709 \pm 0.0699 \quad (0.134)$ Radium-226 pCi/L 07/24/16 14:47 13982-63-3

C:93% T:NA

 0.634 ± 0.329

C:85% T:88%

Calculation

FPA 9320

REPORT OF LABORATORY ANALYSIS

(0.564)

pCi/L

07/25/16 16:53 15262-20-1

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc..



07/26/16 14:48 7440-14-4

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187991

Sample: DUP-1 Lab ID: 30187991005 Collected: 05/19/16 00:01 Received: 06/28/16 10:30 Matrix: Water

PWS: Site ID: Sample Type:

Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual

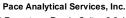
pCi/L

Total Radium Total Radium 0.705 ± 0.399 (0.698)
Calculation

Sample: HGWA-5 Lab ID: 30187991006 Collected: 05/19/16 10:27 Received: 06/28/16 10:30 Matrix: Water

PWS: Site ID: Sample Type:

Parameters Method Act ± Unc (MDC) Carr Trac Units CAS No. Analyzed Qual 0.183 ± 0.149 (0.266) Radium-226 EPA 9315 07/21/16 09:14 13982-63-3 pCi/L C:96% T:NA Radium-228 EPA 9320 0.502 ± 0.323 (0.592)pCi/L 07/25/16 21:00 15262-20-1 C:81% T:83% Total Radium Total Radium $0.685 \pm 0.472 \quad (0.858)$ pCi/L 07/26/16 14:48 7440-14-4 Calculation





QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187991

QC Batch: 226713 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30187991001, 30187991002, 30187991003, 30187991004, 30187991005, 30187991006

METHOD BLANK: 1110829 Matrix: Water

Associated Lab Samples: 30187991001, 30187991002, 30187991003, 30187991004, 30187991005, 30187991006

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.547 ± 0.363 (0.688) C:86% T:81%
 pCi/L
 07/25/16 12:44

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187991

QC Batch: 226340 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30187991001, 30187991002, 30187991003, 30187991004, 30187991005, 30187991006

METHOD BLANK: 1108957 Matrix: Water

Associated Lab Samples: 30187991001, 30187991002, 30187991003, 30187991004, 30187991005, 30187991006

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.00738 ± 0.0837 (0.222) C:95% T:NA
 pCi/L
 07/25/16 07:48

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.



Greensburg, PA 15601 (724)850-5600



QUALIFIERS

Project: Hammond CCR
Pace Project No.: 30187991

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

Date: 07/26/2016 03:25 PM

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#:30187991

TRANSFER OF SAMPLES

Environmental Laboratory

2480 Maner Road, Bin 39110 Atlanta, Georgia 30339



a southern company

Fax: (404) 799-2141 Phone: (404) 799-2100

103534 Sample Delivery Group No.

		Calcing Village Village VIII	100000
Lab Contact:	Project Name:	Vondor Isharator, Name and Adding	
,		version rabolatory marrie and Address	
Jolynn Locke	Hammond CCR	Pace Analytical Services, Inc.	
Email Results To: joklocke@s	joklocke@southernco.com	110 Technology Parkway	
Turnaound Time: (or expected date of results)		Peachtree Corners. GA 30092	
21 days		770-734-4013	
Duch Charges Authorized No. 11	č		
hasil cilaiges Autilofized: Tes INO X Signature:	Signature:	Date of Sample Transfer	
		6/24/2016	

					6/24/2016	
Sample	Sample	No. of	Project	Laboratory	Analysis	
Date	Time	Containers	#01	# <u>O</u> I	Regerated	Remarks
5/19/2016	9:30	(-1	HGWA-1	103534001	Radium 226 FPA 903 1/Radium 228 FDA 904 0/0 2	J. W. D.
5/19/2016	11:26	7	HGWA-2	103534002	Radium 226 FPA 903 1/Radium 228 FDA 00/ 0/P2 Combined	3
5/19/2016	17:37	H	HGWA-4	103534003	Radium 226 EPA 903.1/Radium 228 FDA 904 0/P2 Combined	000
5/19/2016	16:05	н	HGWA-3	103534004	Radium 226 EPA 903.1/Radium 228 FDA 904.0/Re Combined	
5/19/2016		н	DUP-1	103534005	Radium 226 FPA 903 1/Radium 228 FDA 904 0/B2 Combined	1000
5/19/2016	10:27	7-4	HGWA-5	103534006	Radium 326 EDA 002 4 (Badium 220 EDA 000 0 (B. C.	250
				2001	nadidili 220 EFA 303.1/ Radium 226 EFA 304.0/Ra Combined	000
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- (/	(/	м			Received by:	
7	201 100	があり			11/2/18 KN	
Comments:	Sathples pre	served with }	@mments: Sachples preserved with HNO3 to <2 pH		Date / Time: 6-78-16 10375	

Sample Condition Upon F	Receipt F	Pittsb	urg	ıh		550 6h		
Face Analytical Client Name	ə:	6	A	Power	Project #	301	879 ——	9 1
Courier: M Fed Ex UPS USPS Tracking #: <u>68125097293</u>	Client	Comṃ	ercial	Pace Other				
Custody Seal on Cooler/Box Present:	yes 💢	no	Seal	s intact:	□ no			
Thermometer Used	Туре	of Ice:	We	t Blue None				
Cooler Temperature Observed Temp		·c	Corr	rection Factor:	°C Final	Temp:	•	C
Temp should be above freezing to 6°C					D-4	I 141 - I		1
_	<u> </u>			_	Date and contents	Initials of pers	on examin	ing —
Comments:	Yes	No	N/A			6~	<u> 28-16</u>	
Chain of Custody Present:	- X			1.		·		
Chain of Custody Filled Out:	 ◊-			2.				
Chain of Custody Relinquished:	$ \downarrow \Delta$	12		3,	•			
Sampler Name & Signature on COC:		Λ		4.				
Sample Labels match COC:	LX			5.				
-Includes date/time/ID/Analysis Matrix	·	WI						
Samples Arrived within Hold Time:	X	\(\(\)		6.				
Short Hold Time Analysis (<72hr remaining	ı):	X		7.				
Rush Turn Around Time Requested:		X		8,				
Sufficient Volume:	X_			9.				
Correct Containers Used:	X			10.				
-Pace Containers Used:		Χ		1				
Containers Intact:	X			11.				
Filtered volume received for Dissolved tests			Χ	12.				
All containers needing preservation have been checked	ı. X			13				
All containers needing preservation are found to be compliance with EPA recommendation.	in X			PHZZ				
exceptions: VOA, coliform, TOC, O&G, Phen	olice			Initial when completed	Date/time of			
	DIICS			Lot # of added	preservation			
			\ <u>\</u>	preservative				
Headspace in VOA Vials (>6mm):			X	14.				
Гrip Blank Present:			λ	15.				
rip Blank Custody Seals Present			$\perp X \perp$					
Client Notification/ Resolution:								
Person Contacted:			Date/T	ime:	Contact	ed By:		
Comments/ Resolution:								
				- APA				
				y				

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)



Quality Control Sample Performance Assessment

720/2016 30360 DW ₩ M M M Date: Worklist: Matrix: Analyst

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment

Sample Coffection Date: Sample I.D.

Sample MS I.D. Sample MSD LD.

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):

0.007 0.084 0.222 0.17 MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator:

Method Blank Assessment

N/A Pass MB Status vs Numerical Indicator: MB Status vs. MDC:

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): Matrix Spike Result Counting Uncertainty (pCill., g, F): Sample Matrix Spike Duplicate Result:

Sample Matrix Spike Result:

Matrix Spike Duplicate Result Counting Uncertainty (pCitL, 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:

-CSD30360 7/25/2016 47.784 0.10 0.504 9.472 0.446 7.338 0.621 -5.47 77.47% N/A 16-001 3D (Y or N)? LCS30360 16-001 0.503 9.491 0.446 81.00% 0.10 7.688 ξ Aliquot Volume (L, g, F): Target Conc. (pCi/l., g, F): Uncertainty (Calculated): Spike Concentration (pCi/mL): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Numerical Performance Indicator: Count Date Volume Used (mL): Result (pCi/L, g, F): Percent Recovery: Spike I.D. Status vs Numerical Indicator: Status vs Recovery Laboratory Control Sample Assessment

MS Status vs Recovery: MSD Status vs Recovery: Sample MS I.D. Sample MSD I.D. Matrix Spike/Matrix Spike Duplicate Sample Assessment other than LCS/LCSD in the space below. Enter Duplicate sample IDs if

LCS30360 -CSD30360 7.688 0.645

Sample I.D.; Duplicate Sample I.D. Sample Result (pCi/L, g, F):

Duplicate Sample Assessment

7.338

Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC?

Sample Result Counting Uncertainty (pCi/L, g, F):

õ

0.766 4.66% N/A Pass

Duplicate RPD:

Duplicate Status vs RPD:

Comments:

#

Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator;

Sample I.D.

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

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

1 of 1

Printed: 7/26/2016 12:56 PM TAR DW QC

Quality Control Sample Performance Assessment

Face Analytical"

<u>Analyst Must Manually Enter All Fields Highlighted in Yellow.</u>

7/21/2016 JLW Analyst: Test: Date:

30408 Worklist: Matrix:

Method Blank Assessment

Sample MS 1.D.

MS/MSD Decay Corrected Splike Concentration (pCi/mL):

Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F):

Sample Collection Date: Sample I.D. Sample MSD I.D.

Sample Matrix Spike Control Assessment

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 (pCl/L, g, F):

Sample Matrix Spike Result:

Matrix Spike Result Counting Uncertainty (pCi/l., g, F): Sample Matrix Spike Duplicate Result.

1110829 0.547 MB Sample ID MB concentration:

0.349 0.688 3.07 N/A Pass MB MDC: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC: M/B Counting Uncertainty:

LC\$30408 7/25/2016 16-025 Volume Used (mL):
Aliquot Volume (L, g, F):
Target Conc. (pCi/L, g, F):
Uncertainty (Calculated): Spike Concentration (pCi/mL): Count Date; Spike I.D.: Laboratory Control Sample Assessment

LCSD30408 7/25/2016 16-025 26.111 0.20 0.802 6.511 0.469 -3.92 75.52% 0.644 ĕ 26.111 0.20 0.808 6.462 0.465 4.536 0.607 LCS/LCSD Counting Uncertainty (pCi/L, g, F): Result (pCi/L, g, F): Numerical Performance Indicator: Percent Recovery: Status vs Numerical Indicator; Status vs Recovery

Matrix Spike Duplicate Result Counting Uncertainty (pCif., 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:

Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result Counting Uncertainty (pCII., g. F): Sample Matrix Spike Duplicate Result Matrix Spike Duplicate Result Counting Uncertainty (pCII., g. F): Sample Matrix Spike Result Duplicate Numerical Performance Indicator: Matrix Spike/Matrix Spike Duplicate Sample Assessment

> sample IDs if other than Enter Duplicate

> > LCSD30408

4.536 0.607

Sample Result (pCI/L, g, F).

Duplicate Sample I.D.

LCS30408

Sample I.D.:

Duplicate Sample Assessment

the space below LCS/LCSD in

Sample Result Counting Uncertainty (OCIT. 9.7).
Sample Duplicate Result (OCIT. 9. F):
Sample Duplicate Result Counting Uncertainty (OCIT. 9. F):
Are sample and/or duplicate results below MDC?

4.917 0.644 NO -0.844 8.06%

ΝĀ

Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD:

Duplicate Numerical Performance Indicator:

Duplicate RPD;

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:

Ra-228 (R086-6 17Jul2016).xls

Ra-228 NELAC DW2 Printed: 7/26/2016 12:53 PM





Greensburg, PA 15601 (724)850-5600

July 26, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Hammond CCR

Pace Project No.: 30187992

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 28, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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

Sugarly Cellins

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: Hammond CCR Pace Project No.: 30187992

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.

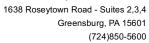
Pace Analytical®

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

SAMPLE SUMMARY

Project: Hammond CCR
Pace Project No.: 30187992

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187992001	HGWA-7	Water	05/20/16 09:05	06/28/16 10:30
30187992002	HGWA-8	Water	05/20/16 09:09	06/28/16 10:30
30187992003	HGWA-6	Water	05/20/16 09:23	06/28/16 10:30

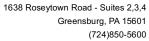




SAMPLE ANALYTE COUNT

Project: Hammond CCR
Pace Project No.: 30187992

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187992001	HGWA-7	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187992002	HGWA-8	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187992003	HGWA-6	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

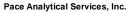




ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187992

Sample: HGWA-7	Lab ID: 30187992	2001 Collected: 05/20/16 09:05	Received:	06/28/16 10:30 N	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.163 ± 0.117 (0.179) C:97% T:NA	pCi/L	07/25/16 09:22	13982-63-3	
Radium-228	EPA 9320	0.457 ± 0.304 (0.564) C:84% T:84%	pCi/L	07/25/16 21:00	15262-20-1	
Total Radium	Total Radium Calculation	0.620 ± 0.421 (0.743)	pCi/L	07/26/16 14:48	7440-14-4	
Sample: HGWA-8	Lab ID: 30187992	2002 Collected: 05/20/16 09:09	Received:	06/28/16 10:30 M	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.198 ± 0.133 (0.221) C:104% T:NA	pCi/L	07/25/16 09:22	13982-63-3	
Radium-228	EPA 9320	0.362 ± 0.344 (0.698) C:83% T:76%	pCi/L	07/25/16 21:00	15262-20-1	
Total Radium	Total Radium Calculation	0.560 ± 0.477 (0.919)	pCi/L	07/26/16 14:48	7440-14-4	
Sample: HGWA-6	Lab ID: 30187992		Received:	06/28/16 10:30 M	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0233 ± 0.101 (0.256) C:95% T:NA	pCi/L	07/25/16 09:22	13982-63-3	
Radium-228	EPA 9320	0.820 ± 0.393 (0.663) C:79% T:89%	pCi/L	07/25/16 20:55	15262-20-1	
Total Radium	Total Radium Calculation	0.843 ± 0.494 (0.919)	pCi/L	07/26/16 14:48	7440-14-4	





QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187992

QC Batch: 226713 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30187992001, 30187992002, 30187992003

METHOD BLANK: 1110829 Matrix: Water

Associated Lab Samples: 30187992001, 30187992002, 30187992003

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.547 ± 0.363 (0.688) C:86% T:81%
 pCi/L
 07/25/16 12:44

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187992

QC Batch: 226873 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30187992001, 30187992002, 30187992003

METHOD BLANK: 1111681 Matrix: Water

Associated Lab Samples: 30187992001, 30187992002, 30187992003

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 -0.0742 ± 0.0894
 (0.291) C:97% T:NA
 pCi/L
 07/25/16 09:22

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.



QUALIFIERS

Project: Hammond CCR
Pace Project No.: 30187992

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

Date: 07/26/2016 03:25 PM

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#:30187992

Environmental Laboratory

2480 Maner Road, Bin 39110 Atlanta, Georgia 30339

Phone: (404) 799-2100

Fax: (404) 799-2141

TRANSFER OF SAMPLES

a southern company

FHONOIS

Remarks 103519 Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined Sample Delivery Group No. Vendor Laboratory Name and Address Requested Analysis Peachtree Corners, GA 30092 Pace Analytical Services, Inc. 110 Technology Parkway Date of Sample Transfer 770-734-4203 6/24/2016 Received By: Date / Time: 103519003 Laboratory 103519001 103519002 Hammond CCR joklocke@southernco.com HGWC-7 HGWC-8 HGWA-6 samples preserved with HNO3 to <2 pH Project Name: Project <u>#</u> Rush Charges Authorized: Yes Nox Signature: Turnaound Time: (or expected date of results) Containers No. of Sample Time Fransfer By (Signature); 9:05 9:09 9:23 **Email Results To:** Jolynn Locke Lab Contact: Çamments: 5/20/2016 5/20/2016 5/20/2016 Sample Date 21 days

Sample Condition Upon Rece	eipt F	Pittsb	ourg	gh					
Pace Analytical Client Name:	<u></u>	6	A	Power	Project#_			7	9 9 ;
Courier: M Fed Ex UPS USPS Clie. Tracking #: 68125097293	nt 🗆	Comm	ercia	Pace Other					
Custody Seal on Cooler/Box Present: yes		no		ils intact: 🔲 yes	По				
Thermometer Used	Type	of Ice:	W	et Blue None					
Cooler Temperature Observed Temp		٠c	Cor	rection Factor:	°C Final T	emp <u>:</u>			° C
Temp should be above freezing to 6°C					Date and In	tials of	nerenn	evami	inina
	TV	LAID	N/A	<u> </u>	contents:		<u> </u>	2 1/	·
Comments:	Yes	No	IN//				0-68	~1 <i>F</i> >_	
Chain of Custody Present:	+>			1. 					
Chain of Custody Filled Out:	 \(\)			3.					
Chain of Custody Relinquished:	(\	X		4.					
Sampler Name & Signature on COC: Sample Labels match COC:	X	/\		5.					
-Includes date/time/ID/Analysis Matrix:		1.17	-	┦~					
Samples Arrived within Hold Time:	ΙX			6.					
Short Hold Time Analysis (<72hr remaining):		χ		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. 山, フ					
All containers needing preservation are found to be in compliance with EPA recommendation.	χ			PILL					
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed	Date/time of preservation				
				Lot # of added					
		Т	Ϋ́	preservative					\dashv
Headspace in VOA Vials (>6mm):	_		$\frac{\Lambda}{\Lambda}$	15.					
Trip Blank Present:			∜	15.					
Frip Blank Custody Seals Present				<u> </u>					
Client Notification/ Resolution:			_			_			
Person Contacted:				Time:	Contacted	в <u>у:</u>			
Comments/ Resolution:									
					<u> </u>				

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)



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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 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.

MS Aliquot (L, g, F):

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:

Sample Collection Date:

Sample Matrix Spike Control Assessment

Ra-226 JAL 7/20/2016 30421 DW Analyst: Date: Worklist: Matrix: Test:

c Assessment		
•	MB Sample ID	1111681
	MB concentration:	-0.074
2	M/B Counting Uncertainty:	0.089
	MB MDC:	0.291
MB Numeric	MB Numerical Performance Indicator:	-1.64
MB Statu	MB Status vs Numerical Indicator:	N/A
	MB Status vs. MDC:	Pass

Laborator

Method Blank

ry Control Sample Assessment	LCSD (Y or N)?	⋆
	LCS30421	LCSD30421
Count Date:	7/25/2016	7/25/2016
Spike I.D.:	16-001	16-001
Spike Concentration (pCi/mL):	47.784	47.784
· Volume Used (mL):	0.10	0.10
Aliquot Volume (L. g, F);	0.504	0.507
Target Conc. (pCi/L, g, F):	9.488	9.424
Uncertainty (Calculated):	0.446	0.443
Result (pCi/L, g, F):	7.756	7.493
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.672	0.637
Numerical Performance Indicator:	4.21	-4.88
Percent Recovery:	81.75%	79.51%
Stafus vs Numerical Indicator:	N/A	A/N
Status vs Recovery:	Pass	Pass

		-			_					_	_
	Enter Duplicate	sample IDs if	other than	LCS/LCSD in the	space below.						
	LCS30421	LCSD30421	7.756	0.672	7.493	0.637	<u>8</u>	0.558	3.46%	N/A	Pass
Uupiicate Sample Assessment	Sample I.D.:	Duplicate Sample I.D.	Sample Result (pCi/L, g, F):	Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	Are sample and/or duplicate results below MDC?	Duplicate Numerical Performance Indicator:	Duplicate RPD:	Duplicate Status vs Numerical Indicator:	Duplicate Status vs RPD:

Sample Matrix Spike Result: Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCif., g, F): Sample Matrix Spike Duplicate Result.

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

MS/ MSD Duplicate RPD;

Duplicate Numerical Performance Indicator.

MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:

Sample I.D. Sample MS I.D. Sample MSD I.D.

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

Comments:

1 of 1

TAR DW QC Printed: 7/26/2016 12:57 PM



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample I.D. Sample MS I.D. Sample Collection Date:

Sample MSD I.D. Spike LD.

MS/MSD Decay Corrected Spike Concentration (pCi/mL);

Spike Volume Used in MS (mL); Spike Volume Used in MSD (mL);

75.7 Test: Analyst: Date:

721/2016 30408

Sample Matrix Spike Control Assessment

Worklist: Matrix:

Method Blank Assessment

0.349 0.688 3.07 N/A Pass MB Sample ID MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC: M/B Counting Uncertainty: MB MDC:

MS Target Conc. (PCI, g, F):
MST 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): Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Duplicate Result

MSD Numerical Performance Indicator:

MS Percent Recovery:

MSD Percent Recovery.

MS Numerical Performance Indicator:

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

Duplicate Sample Assessmen

Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result

Sample I.D.

5D (Y or N); LCS30408 7/25/2016 16-025 0.20 0.808 6.462 Count Date: Spike Concentration (pCi/mL): Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Spike I.D.: Volume Used (mL): Laboratory Control Sample Assessment

LCSD30408 7/25/2016 16-025 26.111 0.20 0.802 6.511 0.469 4.917 0.644 -3.92 75.52% N/A 0.607 Result (PCI/L, g, F): LCS/LCSD Counting Uncertainty (PCI/L, g, F): Uncertainty (Calculated): Numerical Performance Indicator: Percent Recovery: Status vs Numerical Indicator: Status vs Recovery

Enter Duplicate he space below sample IDs if LCS/LCSD in other than LCSD30408 LCS30408 4.536 0.607 4.917 0.644 9 Sample Result (DCIft. g, F):
Sample Result Counting Uncertainty (DCIft. g, F):
Sample Duplicate Result (DCIft. g, F):
Sample Duplicate Result Counting Uncertainty (DCIft. g, F):
Are sample and/or duplicate results below MOC? Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator: Sample I.D.: Duplicate Sample I.D. Duplicate RPD:

-0.844 8.06% N/A Pass Duplicate Status vs RPD;

Matrix Spike Result Counting Uncertainty (pCi/l., g, F): Sample Matrix Spike Duplicate Result. Matrix Spike Duplicate Result Counting Uncertainty (pCt/L, g, F): Duplicate Numerical Performance Indicator:

MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD

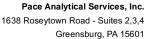
MS/ MSD Duplicate RPD;

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

Comments:



Printed: 7/26/2016 12:53 PM Ra-228 NELAC DW2



(724)850-5600



August 09, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory between June 28, 2016 and July 05, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Report reissued 8/9/16 to include the Ra-226 that were missing from the initial report.

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

Sincerely,

Jacquelyn Collins

Sugarlybellin

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

Plant Hammond AP CCR GW Project:

Pace Project No.: 30188809

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

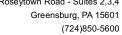
Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143 West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L





SAMPLE SUMMARY

Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30188809001	HGWC-16	Water	07/01/16 11:05	07/05/16 10:00
30188809002	HGWC-11	Water	05/23/16 12:10	06/28/16 10:30
30188809003	HGWC-12	Water	05/23/16 13:51	06/28/16 10:30
30188809004	DUP-2	Water	05/23/16 00:01	06/28/16 10:30
30188809005	HGWC-14	Water	05/23/16 12:28	07/01/16 15:06
30188809006	HGWC-15	Water	05/23/16 13:59	06/28/16 10:30
30188809007	FB-1	Water	05/23/16 09:00	06/28/16 10:30
30188809008	FB-2	Water	05/23/16 09:30	06/28/16 10:30
30188809009	FERB-1	Water	05/23/16 16:30	06/28/16 10:30
30188809010	FERB-2	Water	05/23/16 17:00	06/28/16 10:30
30188809011	HGWC-9	Water	05/23/16 12:00	06/28/16 10:30
30188809012	HGWC-10	Water	05/23/16 14:06	06/28/16 10:30
30188809013	HGWC-17	Water	05/23/16 16:21	06/28/16 10:30
30188809014	HGWC-13	Water	05/23/16 15:15	06/28/16 10:30



SAMPLE ANALYTE COUNT

Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809

March Marc	Lab ID	Sample ID	Method	Analysts	Analytes Reported
March Marc	30188809001	HGWC-16	EPA 9315	JAL	1
March Marc			EPA 9320	JLW	1
FPA 9320 JLW 1 1 1 1 1 1 1 1 1			Total Radium Calculation	CMC	1
New Part New Part	30188809002	HGWC-11	EPA 9315	JAL	1
30188809003 HGWC-12 EPA 9315 JAL 1 EPA 9320 JLW 1 30188809004 DUP-2 EPA 9315 JAL 1 30188809004 DUP-2 EPA 9320 JLW 1 30188809005 HGWC-14 EPA 9315 JAL 1 30188809005 HGWC-14 EPA 9315 JAL 1 30188809006 HGWC-15 EPA 9315 JAL 1 30188809006 HGWC-15 EPA 9320 JLW 1 30188809006 HGWC-15 EPA 9320 JLW 1 30188809007 FB-1 EPA 9315 JAL 1 30188809007 FB-2 EPA 9315 JAL 1 30188809008 FB-2 EPA 9315 JAL 1 30188809009 FB-2 EPA 9315 JAL 1 30188809009 FERB-1 EPA 9315 JAL 1 30188809009 FERB-2 EPA 9315 JAL 1 4 EPA 9320 JUW 1 1 5 FAR 9320			EPA 9320	JLW	1
FPA 9320 JLW 1			Total Radium Calculation	CMC	1
Total Radium Calculation	30188809003	HGWC-12	EPA 9315	JAL	1
30188809004 DUP-2 EPA 9315 JJL 1 EPA 9320 JLW 1 30188809005 HGWC-14 EPA 9315 JJL 1 EPA 9320 JLW 1 EPA 9320 JLW 1 30188809006 HGWC-15 EPA 9315 JAL 1 EPA 9320 JLW 1 1 EPA 9320 JLW 1 30188809007 FB-1 EPA 9320 JLW 1 30188809007 FB-1 EPA 9315 JAL 1 EPA 9320 JLW 1 1 30188809007 FB-2 EPA 9315 JAL 1 EPA 9320 JLW 1 1 30188809008 FB-2 EPA 9315 JAL 1 30188809009 FERB-1 EPA 9320 JLW 1 30188809010 FERB-2 EPA 9315 JAL 1 EPA 9320 JLW 1 1 EPA 9320 JLW 1 1 30188809011 HGWC-9 EPA 9320 J			EPA 9320	JLW	1
February February			Total Radium Calculation	CMC	1
Total Radium Calculation	30188809004	DUP-2	EPA 9315	JAL	1
30188809005 HGWC-14 EPA 9315 JAL 1 30188809006 HGWC-15 EPA 9315 JAL 1 30188809007 FB-1 EPA 9315 JAL 1 30188809007 FB-1 EPA 9315 JAL 1 30188809008 FB-2 EPA 9315 JAL 1 30188809008 FB-2 EPA 9315 JAL 1 30188809008 FB-2 EPA 9315 JAL 1 30188809009 FERB-1 EPA 9320 JLW 1 30188809009 FERB-1 EPA 9315 JAL 1 30188809009 FERB-2 EPA 9315 JAL 1 30188809010 FERB-2 EPA 9315 JAL 1 30188809011 HGWC-9 EPA 9320 JLW 1 30188809012 HGWC-10 TOTAL Radium Calculation CMC 1 30188809012 HGWC-10 EPA 9320 JLW 1 30188809012 HGWC-10 EPA 9315 JAL 1 30188809012 HGWC-10 EPA 9320 </td <td></td> <td></td> <td>EPA 9320</td> <td>JLW</td> <td>1</td>			EPA 9320	JLW	1
PERPA 9320 JLW 1 1 1 1 1 1 1 1 1			Total Radium Calculation	CMC	1
Total Radium Calculation	30188809005	HGWC-14	EPA 9315	JAL	1
30188809006 HGWC-15 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809007 FB-1 EPA 9315 JAL 1 EPA 9320 JLW 1 30188809008 FB-2 EPA 9315 JAL 1 EPA 9320 JLW 1 EPA 9320 JLW 1 30188809009 FERB-1 EPA 9315 JAL 1 EPA 9320 JLW 1 EPA 9320 JLW 1 1 EPA 9320 JLW 1 EPA 9320 JLW 1 EPA 9320 JLW 1 EPA 9320 JLW 1 EPA 9320 JLW 1 EPA 9320 JLW 1 EPA 9320 JLW 1 EPA 9320 JLW 1 EPA 9320 JLW 1 EPA 9320 JLW 1 EPA 9315 JAL 1 EPA 9316 JAL			EPA 9320	JLW	1
PR 9320 JLW 1 1 1 1 1 1 1 1 1			Total Radium Calculation	CMC	1
Total Radium Calculation	30188809006	HGWC-15	EPA 9315	JAL	1
30188809007 FB-1 EPA 9315 (EPA 9320) JAL (IPA 9320) 1 30188809008 FB-2 EPA 9315 (EPA 9315) JAL (IPA 9320) 1 30188809009 FERB-1 EPA 9320 (EPA 9320) JAL (IPA 9320) 1 30188809010 FERB-2 EPA 9315 (EPA 9320) JAL (IPA 9320) 1 30188809010 FERB-2 EPA 9315 (EPA 9315) JAL (IPA 9320) 1 30188809011 HGWC-9 EPA 9315 (EPA 9315) JAL (IPA 9320) 1 30188809012 HGWC-10 EPA 9315 (EPA 9320) JAL (IPA 9320) 1 30188809012 HGWC-10 EPA 9315 (EPA 9315) JAL (IPA 9320) 1 30188809012 HGWC-10 EPA 9315 (EPA 9315) JAL (IPA 9320) 1 30188809012 HGWC-10 EPA 9315 (EPA 9315) JAL (IPA 9320) 1 30188809013 HGWC-10 EPA 9315 (EPA 9320) JAL (IPA 9320) 1 30188809012 HGWC-10 EPA 9315 (EPA 9320) JAL (IPA 9320) 1 301890013 HGWC-10 EPA 9315 (EPA 9320) JAL (IPA 9320) 1 30189013 HGWC-10 EPA 9315 (EPA 932			EPA 9320	JLW	1
FB-2 FB-2 FB-9 9315 JAL 1 1 1 1 1 1 1 1 1			Total Radium Calculation	CMC	1
Total Radium Calculation	30188809007	FB-1	EPA 9315	JAL	1
30188809008 FB-2 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809009 FERB-1 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809010 FERB-2 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809011 HGWC-9 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809012 HGWC-10 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 Total Radium Calculation CMC <td></td> <td></td> <td>EPA 9320</td> <td>JLW</td> <td>1</td>			EPA 9320	JLW	1
FERB-1 FERB-1 FERB-1 FERB-2 FERB-2 FERB-2 FERB-3315 FERB-2 FERB-3315 FERB-330188809010 FERB-2 FERB-3315 FERB-3300 FERB-3 FERB-3300 FERB-3 FERB-3300 FERB-3 FERB-3300 FERB-3 FERB-3300 FERB-330			Total Radium Calculation	CMC	1
Total Radium Calculation CMC 1 30188809009 FERB-1 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809010 FERB-2 EPA 9315 JAL 1 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 EPA 9315 JAL 1 Total Radium Calculation CMC 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 Total Radium Calculation CMC 1 Total Radium Calculation CMC 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 EPA 9320 JLW 1	30188809008	FB-2	EPA 9315	JAL	1
30188809009 FERB-1 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809010 FERB-2 EPA 9315 JAL 1 EPA 9320 JLW 1 30188809011 HGWC-9 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809012 HGWC-10 EPA 9315 JAL 1 EPA 9320 JLW 1 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 Total Radium Calculation CMC 1			EPA 9320	JLW	1
EPA 9320			Total Radium Calculation	CMC	1
Total Radium Calculation CMC 1 30188809010 FERB-2 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 Total Radium Calculation CMC 1 Total Radium Calculation CMC 1 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1	30188809009	FERB-1	EPA 9315	JAL	1
30188809010 FERB-2 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809011 HGWC-9 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 EPA 9315 JAL 1 EPA 9320 JLW 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 Total Radium Calculation CMC 1			EPA 9320	JLW	1
EPA 9320 JLW 1 Total Radium Calculation CMC 1 S0188809011 HGWC-9 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 EPA 9315 JAL 1 EPA 9315 JAL 1 EPA 9315 JAL 1 Total Radium Calculation CMC 1 EPA 9320 JLW 1			Total Radium Calculation	CMC	1
Total Radium Calculation CMC 1 30188809011 HGWC-9 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809012 HGWC-10 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 Total Radium Calculation CMC 1	30188809010	FERB-2	EPA 9315	JAL	1
30188809011 HGWC-9 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809012 HGWC-10 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1			EPA 9320	JLW	1
EPA 9320 JLW 1 Total Radium Calculation CMC 1 30188809012 HGWC-10 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1			Total Radium Calculation	CMC	1
Total Radium Calculation CMC 1 30188809012 HGWC-10 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1	30188809011	HGWC-9	EPA 9315	JAL	1
30188809012 HGWC-10 EPA 9315 JAL 1 EPA 9320 JLW 1 Total Radium Calculation CMC 1			EPA 9320	JLW	1
EPA 9320 JLW 1 Total Radium Calculation CMC 1			Total Radium Calculation	CMC	1
Total Radium Calculation CMC 1	30188809012	HGWC-10	EPA 9315	JAL	1
			EPA 9320	JLW	1
30188809013 HGWC-17 EPA 9315 JAL 1			Total Radium Calculation	CMC	1
	30188809013	HGWC-17	EPA 9315	JAL	1

REPORT OF LABORATORY ANALYSIS

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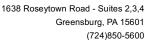


SAMPLE ANALYTE COUNT

Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188809014	HGWC-13	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809 Collected: 07/01/16 11:05 Sample: HGWC-16 Lab ID: 30188809001 Received: 07/05/16 10:00 Matrix: Water PWS: Site ID: Sample Type: Comments: • Sample received without a lid on 6/28. Received additional volume on 7/5. **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed EPA 9315 0.242 ± 0.191 (0.357) Radium-226 pCi/L 08/08/16 06:45 13982-63-3 C:90% T:NA Radium-228 EPA 9320 -0.374 ± 0.597 (1.48) pCi/L 07/29/16 15:38 15262-20-1 C:71% T:81% Total Radium Total Radium 0.000 ± 0.788 (1.84) 08/08/16 14:00 7440-14-4 pCi/L Calculation Sample: HGWC-11 Lab ID: 30188809002 Collected: 05/23/16 12:10 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Radium-226 EPA 9315 $0.257 \pm 0.160 \quad (0.232)$ 08/08/16 06:45 13982-63-3 pCi/L C:90% T:NA EPA 9320 0.252 ± 0.369 (0.796)Radium-228 pCi/L 07/29/16 11:40 15262-20-1 C:78% T:83% Total Radium Total Radium 0.509 ± 0.529 (1.03) 08/08/16 14:00 7440-14-4 pCi/L Calculation Sample: HGWC-12 Lab ID: 30188809003 Collected: 05/23/16 13:51 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: Act ± Unc (MDC) Carr Trac **Parameters** Method Units Analyzed CAS No. Qual EPA 9315 Radium-226 $0.190 \pm 0.156 \quad (0.282)$ 08/08/16 06:45 13982-63-3 pCi/L C:92% T:NA Radium-228 EPA 9320 $0.925 \pm 0.450 \quad (0.771)$ pCi/L 07/29/16 11:40 15262-20-1 C:76% T:78% Total Radium 08/08/16 14:00 7440-14-4 Total Radium 1.12 ± 0.606 (1.05) pCi/L Calculation Sample: DUP-2 Lab ID: 30188809004 Collected: 05/23/16 00:01 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: Method **Parameters** Act ± Unc (MDC) Carr Trac Units CAS No. Analyzed Qual EPA 9315 0.226 ± 0.166 (0.285) Radium-226 pCi/L 08/08/16 06:45 13982-63-3 C:88% T:NA Radium-228 EPA 9320 $0.0371 \pm 0.374 \quad (0.862)$ pCi/L 07/29/16 11:40 15262-20-1 C:71% T:79% Total Radium Total Radium $0.263 \pm 0.540 \quad (1.15)$ pCi/L 08/08/16 14:00 7440-14-4 Calculation Sample: HGWC-14 Lab ID: 30188809005 Collected: 05/23/16 12:28 Received: 07/01/16 15:06 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 0.398 ± 0.188 (0.228)Radium-226 pCi/L 08/08/16 06:45 13982-63-3

REPORT OF LABORATORY ANALYSIS

C:98% T:NA



ANALYTICAL RESULTS - RADIOCHEMISTRY

Plant Hammond AP CCR GW Project:

Pace Project No.: 30188809

Sample: HGWC-14 Lab ID: 30188809005 Collected: 05/23/16 12:28 Received: 07/01/16 15:06 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9320 0.170 ± 0.426 (0.949) Radium-228 08/01/16 12:37 15262-20-1 pCi/L C:76% T:72% Total Radium Total Radium 0.568 ± 0.614 (1.18) pCi/L 08/08/16 14:20 7440-14-4 Calculation Sample: HGWC-15 Lab ID: 30188809006 Collected: 05/23/16 13:59 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual **Parameters** Analyzed Radium-226 EPA 9315 $0.0280 \pm 0.124 \quad (0.310)$ pCi/L 08/08/16 06:45 13982-63-3 C:94% T:NA EPA 9320 $0.143 \pm 0.387 \quad (0.869)$ Radium-228 pCi/L 07/29/16 11:40 15262-20-1 C:73% T:69% 08/08/16 14:00 7440-14-4 Total Radium Total Radium 0.171 ± 0.511 (1.18) pCi/L Calculation Sample: FB-1 Lab ID: 30188809007 Collected: 05/23/16 09:00 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 Radium-226 0.0900 ± 0.118 (0.248) pCi/L 08/08/16 06:45 13982-63-3 C:95% T:NA -0.318 ± 0.327 (0.823) Radium-228 FPA 9320 pCi/L 07/29/16 11:40 15262-20-1 C:71% T:88% Total Radium Total Radium 0.000 ± 0.445 (1.07) pCi/L 08/08/16 14:00 7440-14-4 Calculation Sample: FB-2 Lab ID: 30188809008 Collected: 05/23/16 09:30 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.0634 \pm 0.112 \quad (0.254)$ Radium-226 pCi/L 08/08/16 06:45 13982-63-3 C:94% T:NA EPA 9320 Radium-228 0.0228 ± 0.350 (0.811)pCi/L 07/29/16 11:40 15262-20-1 C:71% T:82% Total Radium Total Radium 08/08/16 14:00 7440-14-4 0.0862 ± 0.462 (1.07) pCi/L Calculation Sample: FERB-1 Lab ID: 30188809009 Collected: 05/23/16 16:30 Received: 06/28/16 10:30 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed EPA 9315 0.0431 ± 0.0957 (0.227) Radium-226 08/08/16 06:45 13982-63-3 pCi/L C:94% T:NA EPA 9320 $0.0285 \pm 0.356 \quad (0.819)$ Radium-228 pCi/L 07/29/16 15:37 15262-20-1 C:76% T:86% Total Radium Total Radium 0.0716 ± 0.452 (1.05) pCi/L 08/08/16 14:00 7440-14-4

REPORT OF LABORATORY ANALYSIS

Calculation

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Plant Hammond AP CCR GW Project:

Pace Project No.: 30188809	9					
Sample: FERB-2 PWS:	Lab ID: 30188 Site ID:	8809010 Collected: 05/23/16 17:00 Sample Type:	Received:	06/28/16 10:30 M	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0251 ± 0.108 (0.276)	pCi/L	08/08/16 06:45	13982-63-3	
Radium-228	EPA 9320	C:92% T:NA 0.258 ± 0.401 (0.869) C:69% T:86%	pCi/L	07/29/16 15:37	15262-20-1	
Total Radium	Total Radium Calculation	0.283 ± 0.509 (1.15)	pCi/L	08/08/16 14:00	7440-14-4	
Sample: HGWC-9	Lab ID: 30188		Received:	06/28/16 10:30 M	atrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.209 ± 0.151 (0.234) C:92% T:NA	pCi/L	08/08/16 06:45	13982-63-3	
Radium-228	EPA 9320	0.617 ± 0.429 (0.829) C:74% T:83%	pCi/L	07/29/16 15:37	15262-20-1	
Total Radium	Total Radium Calculation	0.826 ± 0.580 (1.06)	pCi/L	08/08/16 14:00	7440-14-4	
Sample: HGWC-10 PWS:	Lab ID: 30188 Site ID:		Received:	06/28/16 10:30 M	atrix: Water	
	2	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0343 ± 0.0999 (0.246) C:92% T:NA	pCi/L	08/08/16 06:45	13982-63-3	
Radium-228	EPA 9320	0.385 ± 0.451 (0.950) C:69% T:83%	pCi/L	07/29/16 15:37	15262-20-1	
Total Radium	Total Radium Calculation	0.419 ± 0.551 (1.20)	pCi/L	08/08/16 14:00	7440-14-4	
Sample: HGWC-17	Lab ID: 30188		Received:	06/28/16 10:30 M	atrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.129 ± 0.139 (0.278) C:90% T:NA	pCi/L	08/08/16 06:45	13982-63-3	
Radium-228	EPA 9320	0.489 ± 0.410 (0.819) C:75% T:79%	pCi/L	07/29/16 15:38	15262-20-1	
Total Radium	Total Radium Calculation	0.618 ± 0.549 (1.10)	pCi/L	08/08/16 14:00	7440-14-4	
Sample: HGWC-13 PWS:	Lab ID: 30188 Site ID:	3809014 Collected: 05/23/16 15:15 Sample Type:	Received:	06/28/16 10:30 M	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.287 ± 0.189 (0.305)	pCi/L	08/08/16 06:46		
Radium-228	EPA 9320	C:83% T:NA 0.338 ± 0.385 (0.805) C:70% T:81%	pCi/L	07/29/16 15:38		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809

Sample: HGWC-13 Lab ID: 30188809014 Collected: 05/23/16 15:15 Received: 06/28/16 10:30 Matrix: Water

PWS: Site ID: Sample Type:

 Parameters
 Method
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 CAS No.
 Qual

 Total Radium
 Total Radium
 0.625 ± 0.574 (1.11)
 pCi/L
 08/08/16 14:00 7440-14-4
 7440-14-4

Calculation





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809

QC Batch: 227761 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30188809005

METHOD BLANK: 1115859 Matrix: Water

Associated Lab Samples: 30188809005

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.173 ± 0.364 (0.804) C:77% T:80%
 pCi/L
 08/01/16 12:37





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809

QC Batch: 228461 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30188809001, 30188809002, 30188809003, 30188809004, 30188809005, 30188809006, 30188809007, 30188809008, 30188809009, 30188809010, 30188809011, 30188809012, 30188809013, 30188809014

METHOD BLANK: 1119234 Matrix: Water

Associated Lab Samples: 30188809001, 30188809002, 30188809003, 30188809004, 30188809005, 30188809006, 30188809007,

30188809008, 30188809009, 30188809010, 30188809011, 30188809012, 30188809013, 30188809014

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.104 ± 0.103 (0.181) C:95% T:NA
 pCi/L
 08/08/16 06:45





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809

QC Batch: 227033 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30188809001, 30188809002, 30188809003, 30188809004, 30188809006, 30188809007, 30188809008,

30188809009, 30188809010, 30188809011, 30188809012, 30188809013, 30188809014

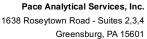
METHOD BLANK: 1112335 Matrix: Water

Associated Lab Samples: 30188809001, 30188809002, 30188809003, 30188809004, 30188809006, 30188809007, 30188809008,

30188809009, 30188809010, 30188809011, 30188809012, 30188809013, 30188809014

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.351 ± 0.393 (0.824) C:73% T:79%
 pCi/L
 07/29/16 11:39



(724)850-5600



QUALIFIERS

Project: Plant Hammond AP CCR GW

Pace Project No.: 30188809

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

Date: 08/09/2016 12:40 PM

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.

Р

CONTAINER TYPE

Costed, Sen Ip: 20160701-01

Face Analytical® **CHAIN OF CUSTODY RECORD**

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

ANALYSIS REQUESTED

5 - NaOH/ZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - ≤6°C not frozen REMARKS/ADDITIONAL INFORMATION 2 - H₂SO₄, ≤6°C 4 - NaOH, ≤6°C PRESERVATION 1 - HCl, ≤6°C P - PRODUCT SL - SLUDGE SD - SOLID L- LIQUID 8 3 - HNO3 S-SOIL A- AIR FOR LAB USE ONLY *MATRIX CODES: WO#:30188809 DRINKING WATER SURFACE WATER GROUNDWATER G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER SW - SURFACE WATE ST - STORM WATER WW - WASTEWATER A - AMBER GLASS P - PLASTIC WATER Š N GW-`_ LAB#: TEXE ALX _ < 0 **-** 0 95% Budiologicals RELINQUISING BY: 8 CONTAINER TYPE: RESERVATION: # of **00×⊢∢−×≡≈∞** 52t-905-(404) SAMPLE IDENTIFICATION 1506 Services COUNTRY CONTRY JECVICA
CLIENT ADDRESS/PHONE NUMBER! SELL TELIPH MCD'II BLULSE BIOIRS 16WC-16 MAMERO 3 8 # BR യെ≪മ × REPORT TO:

SOLO A SCHOME

REQUESTED COMPLETION DATE: 00≥a AP Ene MATRIX CODE* 3 Hermond 241 Ralph MC Symoleca T Collection TIME SAMPLED BY AND TITL 15 15 Plant Collection DATE PROJECT #: 31/1/2

COC Revised 2016-05-17.xlsx

Entered into LIMS:

DATE/TIME

RELINQUISHED BY: SAMPLE SHIPPED

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DATE/TIME:

SE CO

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Tracking #:

OTHER

Coler D.

COURIER

USPS

FED-EX

UPS

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of Coolers

Broken Not Presen

Sample Condition Upon Receipt Pittsburgh

Pace Analytical	Client Name:	Po	ice	GA	Project # 30 1 8 8 8 0 9
Courier: 🔀 Fed Ex 🗆 Tracking #: 6812	UPS	t 🗆 (Comme	ercial	Pace Other
Custody Seal on Coole			10	Seals	s intact: 🗷 yes 🗌 no
Thermometer Used	AIA_	Туре	of Ice:	Wet	Blue (None)
Cooler Temperature	Observed Temp	NA	٠c	Corre	ection Factor: N/A °C Final Temp: N/A °C
Temp should be above freez	zing to 6°C				
					Date and Initials of person examining contents: 478 7/5/16
Comments:	<u></u>	Yes	No	N/A	
Chain of Custody Presen	f:	X			1.
Chain of Custody Filled C	Out:	×			2.
Chain of Custody Relinqu	ished:	X			3,
Sampler Name & Signatu	re on COC:	X			4.
Sample Labels match CC	OC:		X		5. No ID on loottle.
-Includes date/time/ID	/Analysis Matrix:	<u> </u>	7.1		
Samples Arrived within H	old Time:	X			6.
Short Hold Time Analys	is (<72hr remaining):		×		7.
Rush Turn Around Time	e Requested:		X		8.
Sufficient Volume:		X			9.
Correct Containers Used:		×			10.
-Pace Containers Use	d:		×		
Containers Intact:		×			11.
Filtered volume received	for Dissolved tests			×	12.
All containers needing preserv	ration have been checked.	~			13. pHCZ
All containers needing prese compliance with EPA recomi	rvation are found to be in mendation.	X			
exceptions: VOA, colifor			,		Initial when 7/5/16 Date/time of completed RTB Date/time of
					Lot # of added preservative
Headspace in VOA Vials	(>6mm):			X	14.
Trip Blank Present:	(- 0/11/1/).			×	15.
Trip Blank Custody Seals	Drocent			X	
The Blank Custody Seals	Flesent		.,		
Client Notification/ Reso					Outstand Du
				Date/	Time: Contacted By:
Comments/ Resolution:					
		.,,,			
			μ···		

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)

WO#:30188809

PM: JAC Due Date: 07/27/16 CLIENT: GAPOWER

SECTION OF SECTION OF

a southern company

TRANSFER OF SAMPLES

Atlanta, Georgia 30339

Environmental Laboratory

2480 Maner Road, Bin 39110

Phone: (404) 799-2100

Fax: (404) 799-2141

					Sample Delivery Group No.	103564
Lab Contact:			Project Name:			
Jolynn Locke			Hammond CCR		Pace Analytical Services. Inc.	
Email Results To:	s To:	joklocke@s	joklocke@southernco.com		110 Technology Darkway	
Turnaound Time: (or expected date of results)	ime: (or expe	ected date or	f results)		Peachtree Corners, GA 30092	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Z1 days					770-734-4203	
Rush Charges Authorized: Yes No x	s Authorized;	: Yes No x	Signature:		Date of Sample Transfer	
					6/24/2016	
Sample	Sample	No. of	Project	Laboratory	Analysis	
Date	Time	Containers	#0!	<u>#</u> _	Requested	Remarks
5/23/2016	12:10	н	HGWC-11	103564001	20 A OO A	- V &
5/23/2016	13:51	ę~d	HGWC-12	103564002	Radium 226 EDA 602 1/02dium 228 EDA 904:0/ Na Complhed	200
5/23/2016			DUP-2	103564003	7	
5/23/2016	12:28	€4	HGWC-14	103554004	╅	7 00 1
5/23/2016	13:59		HGWC-15	103564005	4	S C
5/23/2016	15:25		HGWC.16	30350505	naturality 220 EFA 303.1/ Radium 228 EFA 904.0/Ra Combined (CD)	SP 045
5/23/2016	6	F	24 2	DOONDECOT	radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined (CC)	000
0102/52/2	00:6	=	1-9-	103564007	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	4001
5/23/2016	9:30	ęw i	FB-2	103564008	╆	\$ \$ \$ \$
5/23/2016	16:30	Н	FERB-1	103564009	Ť	500 500 500 500 500 500 500 500 500 500
5/23/2016	17:00	red	FERB-2	103564010	Radium 226 EPA 903.1/Radium 228 FPA 904.0/Ra Combined	() () () () () () () () () ()
5/23/2016	12:00	F	HGWC-9	103564011	+	2 = 0
5/23/2016	14:06	€~1	HGWC-10	103564012	Radium 226 EPA 903.1/Radium 228 FPA 904 0/Ra Combined	- C
5/23/2016	16:21	pod	HGWC-17	103564013	Radium 226 EPA 903.1/Radium 728 FPA 904 0/R2 Combined COL	200 000
5/23/2016	15:15	el	HGWC-13	103564014	7	
					Constitution of the Complete o	
Transfer By (Şignature):	ignature):				Received By:	<u> </u>
JUCULL.	JUCULANA LUNDING	level				
Comments:	Samples'pre	served with	Samples/preserved with HNO3 to <2 pH		Date / Time: (2 ~ 78 ~ 1/6 //32)	
e 1					0/20 00 00	

16 of 21

Client Name: 6 H Tower Sample Condition Upon Receipt Pittsburgh

comments/ Resolution:							
Person Contacted:			NətsO			Contact	sd by:
ent Notification/ Resolution:				*			
p Blank Custody Seals Present		T .	IV			· · · · · · · · · · · · · · · · · · ·	
b Blank Present:			+	15,			
adspace in VOA Vials (>6mm):	-+	<u> </u>	\	14.			
		<u> </u>	X	preservativ	IVe	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	· · · · · · · · · · · · · · · · · · ·
				be to # tol	babb		
ceptions: VOA, collform, TOC, O&G, Phenolics	:			nitial when completed	11-4	Date/time of preservation	
mpliance with EPA recommendation.	∇	i			1	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
confainers needing preservation are found to be in	X				Z7H0	•	high
containers needing preservation have been checked.	X		,,	.61	L		Medical Man
tered volume received for Dissolved tests	929		<u>X</u>	12,		*7	Smalou an
ontainers Infact:	X	χ		الم!	900 POO	fro Pil Pol	481 71 2 Mul-
-Pace Containers Used:		χ		ļ			
orrect Containers Used:	X			.01			
ufficient Volume:	χ			. 6	4 900	JON MO)	
ush Turn Around Time Requested:		χ		.8			
hort Hold Time Analysis (<72hr remaining):		X		.7			
moldes Arrived within Hold Time:	$X \perp$.9			
-Includes date/lime/ID/Analysis Matrix:	1	IJΨ,					
ample Labels match COC:	$X \perp$.6			
ampler Name & Signature on COC:	$\overline{}$	X		'۲			
hain of Custody Relinquished:	XL			3.		•	
hain of Custody Filled Out:	$X \perp$			2.			
hain of Custody Present:	$X \perp$			ار.			<u>.</u>
omments:	Yes	οN	A\N	L		contents	91-82-9
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onler Temperature Observed Temp O's of grings and bloods ed bloods gme			шоо	e⊂tion Fa			duo
hermometer Used	ı Abe	of Ice O •)		.c Elual	cemp:
Seal on Cooler/Box Present:	. 1				منتي	OI [
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Pace Analytical www.pacelbos.com

Quality Control Sample Performance Assessment

Ra-226 Test:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

LCSD30675 8/8/2016 16-026

D (Y or N)? LCS30675 8/8/2016 16-026

Count Date: Spike I.D.:

Laboratory Control Sample Assessment

	Matro				_				Matrix Sp							Matrix				
0.10	0.510 8.760	0.412	7.872	0.713	-2.11	89.86%	N/A	Pass		Enter Duplicate	sample IDs if	other than	LCS/LCSD in the	space below.						
0.10	0.505 8.841	0.416	6.687	0.660	-5.41	75.63%	N/A	Pass		LCS30675	LCSD30675	6.687	0,660	7.872	0.713	ON ON	-2.391	16.28%	NA NA	Pass,
Volume Used (mL):	Aliquot volume (L, g, F): Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCi/L, g, F):	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	Numerical Performance Indicator:	Percent Recovery:	Status vs Numerical Indicator:	Status vs Recovery:	Duplicate Sample Assessment	Sample I.D.:	Duplicate Sample I.D.	Sample Result (pCl/L, g, F);	Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	Are sample and/or duplicate results below MDC?	Duplicate Numerical Performance Indicator:	Duplicate RPD:	Duplicate Status vs Numerical Indicator:	Duplicate Status vs RPD:

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: ix 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: pike/Matrix Spike Duplicate Sample Assessment

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

Comments:

TAR DW QC Printed: 8/8/2016 4:53 PM

Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date;

Sample Matrix Spike Control Assessment

Sample MS I.D. Sample MSD I.D. Spike I.D.:

7/26/2016 30471 DW ٦٢W Test Analyst: Date: Worklist: Matrix:

Method Blank Assessment

0.351 0.388 0.824 1.77 MB Sample ID MB concentration; MB Numerical Performance Indicator: M/B Counting Uncertainty: MB Status vs Numerical Indicator: MB MDC: MB Status vs. MDC

MS/MSD Decay Corrected Spike Concentration (pCl/mL):

Spike Volume Used in MS (mL):

Spike Volume Used in MSD (mL)

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 (pCf/L, g, F): Sample Matrix Spike Result. Matrix Spike Result Counting Uncertainty (pCifl., g, F): Sample Matrix Spike Duplicate Result.

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F);

MSD Numerical Performance Indicator: MS Numerical Performance Indicator:

MS Percent Recovery:

MSD Percent Recovery:

MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator;

MS Status vs Recovery: MSD Status vs Recovery

Status vs Recovery

Duplicate Sample Assessment

Duplicate Sample I.D.

MS Aliquot (L, g, F):

aboratory Control Sample Assessment

Pass

CSD30471 7/29/2016 16-025 26.077 D (Y or N). LCS30471 Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated): Spike Concentration (pCi/mL): Volume Used (mL): Count Date: Spike I.D.

7/29/2016 16-025 26.077 0.20 0.805 6.476 0.466 6.743 0.58 0.20 0.805 6.480 0.467 4.275 0.707 Result (pCi/l., g, F): LCS/LCSD Counting Uncertainty (pCi/l., g, F): Numerical Performance Indicator: Status vs Numerical Indicator: Percent Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment Enter Duplicate he space below sample IDs if LCS/LCSD in other than LCS30471 LCSD30471 -4.608 44.79% 4.275 0.707 6.743 0.776 N/A Fail 9 Sample Result Counting Uncertainty (pCift_g, F): Sample Duplicate Result (pCift_g, F): Sample Duplicate Result Counting Uncertainty (pCift_g, F): Are sample and/or duplicate results below MDC? Sample I.D.: Sample Result (pCi/L, g, F):

Duplicate Numerical Performance Indicator;

Duplicate RPD:

Duplicate Status vs Numerical Indicator;

Duplicate Status vs RPD

Comments:

Sample I.D. Sample MS I.D. Sample Matrix Spike Result; Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result Counting Uncertainty (PCVL, g, F): Duplicate Numerical Performance Indicator: Sample MSD I.D. 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. ***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

Face Analytical"

Analyst Must Manually Enter All Fields Highlighted in Yellow. 3/1/2016 Ra-228 JLW 30471 DW Test: Analyst: Date: Worklist: Matrix:

Sample Collection Date: Sample I.D. Sample MS I.D. MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Sample MSD I.D. Spike I.D.: Spike Volume Used in MSD (mL): Sample Matrix Spike Control Assessment

MB Sample 1D

Method Blank Assessment

MB concentration: M/B Counting Uncertainty: MB Numerical Performance Indicator:

MB Status vs Numerical Indicator. MB Status vs. MDC:

Laboratory Control Sample Assessment

MB MDC:

MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F): MS Aliquot (L, g, F): Spike uncertainty (calculated):

Sample Resutt Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Sample Result:

LCSD30471 8/3/2016 16-025 26.033 0.20 0.805 6.465 0.465 7.936

16-025 26.033 0.20 0.805 6.469 0.466 7.541 0.949

Volume Used (mL): Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F):

Uncertainty (Calculated):

Spike Concentration (pCi/mL):

LCSD (Y or N)? LCS30471 8/3/2016

Count Date: Spike I.D.: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCifl., g., F):
MS Numerical Performance Indicator:

MSD Numerical Performance Indicator;

MS Percent Recovery. MSD Percent Recovery:

0.838 3.01 122.75%

1.99 |16.57%

Percent Recovery: Status vs Numerical Indicator. Status vs Recovery.

Result (pC/I/L, g, F): LCS/LCSD Counting Uncertainty (pC/I/L, g, F): Numerical Performance Indicator:

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

Enter Duplicate sample IDs if other than LCS/LCSD in

-CSD30471

CS3047

Sample I.D.: Duplicate Sample I.D.

Duplicate Sample Assessment

he space below

7,541 0,949 7,936 0,838

Sample Result (pCift. g, F):
Sample Result (pCift. g, F):
Sample Duplicate Result (pCift. g, F):
Sample Duplicate Result (pCift. g, F):
Are sample and/or duplicate results below MDC?

NO -0.612 5.11% N/A Pass

Duplicate Numerical Performance Indicator:

Duplicate RPD:

Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD:

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

MS/ MSD Duplicate Status vs Numerical Indicator. MS/ MSD Duplicate Status vs RPD: MS/ MSD Duplicate RPD;

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

Comments:

Ra-228 NELAC DW2 Printed: 8/8/2016 4:54 PM

1 of 1

Quality Control Sample Performance Assessment

Ra-228

Test:

Face Analytical"

M٦

Analyst:

Method Blank Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample I.D. Sample MS I.D.

Sample MSD I.D. Spike I.D.:

MSD Target Conc. (pCl/L, g, F): MS/MSD Decay Corrected Spike Concentration (pCl/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc. (pCI/L, g, F): Sample Collection Date Spike Volume Used in MSD (mL): MSD Aliquot (L, g, F): Spike uncertainty (calculated): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery Sample Matrix Spike Control Assessment LCSD30562 8/1/2016 16-025 26.051 0.20 0.801 6.501 0.468 6.086 0.749 -0.92 93.62% //28/2016 3D (Y or N) LCS30562 8/1/2016 30562 DW 0.173 0.362 0.804 0.94 Pass 16-025 26.051 0.20 0.807 6.460 0.465 6.058 0.728 Worklist: Matrix: Date: MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator: Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated): Result (pC/L_g, F):
LCS/LCSD Counting Uncertainty (pC/L_g, F):
Numerical Performance Indicator: MB Status vs Numerical Indicator; Count Date: Spike Concentration (pCi/mL): Volume Used (mL): MB Status vs. MDC Spike I.D. aboratory Control Sample Assessment

Sample Result:

Sample I.D. Sample MS I.D. Sample MSD I.D. Sample MSD I.D. Sample Matrix Spike Result:

Sample Matrix Spike Duplicate Result:

MS/ MSD Duplicate Status vs RPD

Matrix Spike Duplicate Result Counting Uncertainty (pCl/L, g, F):
Duplicate Numerical Performance Indicator:
MS/ MSD Duplicate RPD: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): MS/ MSD Duplicate Status vs Numerical Indicator: other than LCS/LCSD in he space below 6.058 0.728 6.086 0.749 -0.052 0.46% 9 Sample Result Counting Uncertainty (pC)(L, g, F): Sample Duplicate Result (pC)(L, g, F): Sample Duplicate Result (pC)(L, g, F): Are sample and/or duplicate results below MDC? Sample Result (pCI/L, g, F): Duplicate Numerical Performance Indicator: Duplicate RPD: Duplicate Status vs Numerical Indicator; Duplicate Status vs RPD:

Enter Duplicate

sample IDs if

CSD30562

_CS30562

Sample I.D.:

Duplicate Sample Assessmen

Duplicate Sample 1.D.

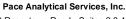
Ϋ́

Percent Recovery:

Status vs Numerical Indicator: Status vs Recovery ## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

1 of 1





July 28, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Hammond CCR

Pace Project No.: 30188011

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on June 28, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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

Sugarly Cellins

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: Hammond CCR Pace Project No.: 30188011

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: Hammond CCR
Pace Project No.: 30188011

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30188011001	HGWC-18	Water	05/24/16 10:24	06/28/16 10:30

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.



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

SAMPLE ANALYTE COUNT

Project: Hammond CCR
Pace Project No.: 30188011

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30188011001	HGWC-18	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30188011

Sample: HGWC-18	Lab ID: 301880	11001	Collected: 05/24/16 10:24	Received:	06/28/16 10:30	Matrix: Water	
PWS:	Site ID:		Sample Type:				
Parameters	Method	Ad	et ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315		l ± 0.216 (0.186) 1% T:NA	pCi/L	07/25/16 12:28	13982-63-3	
Radium-228	EPA 9320		± 0.480 (0.716) % T:67%	pCi/L	07/27/16 12:30	15262-20-1	
Total Radium	Total Radium Calculation	1.82	± 0.696 (0.902)	pCi/L	07/28/16 12:53	3 7440-14-4	





QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30188011

QC Batch: 226716 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30188011001

METHOD BLANK: 1110832 Matrix: Water

Associated Lab Samples: 30188011001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.331 ± 0.308 (0.624) C:89% T:79%
 pCi/L
 07/27/16 12:30





QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30188011

QC Batch: 226875 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30188011001

METHOD BLANK: 1111688 Matrix: Water

Associated Lab Samples: 30188011001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.0115 ± 0.0865 (0.226) C:95% T:NA
 pCi/L
 07/25/16 09:24



QUALIFIERS

Project: Hammond CCR
Pace Project No.: 30188011

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

Date: 07/28/2016 02:15 PM

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#:30188011



a southern company

TRANSFER OF SAMPLES

Environmental Laboratory 2480 Maner Road, Bin 39110 Atlanta, Georgia 30339

Fax: (404) 799-2141

Phone: (404) 799-2100

1					Sample Delivery Group No.	103585
Jolynn Locke			Project Name: Hammond CCR		Vendor Laboratory Name and Address Pace Analytical Services, Inc.	
Email Results To:	3 To:	joklocke@s	joklocke@southernco.com		110 Technology Parkway	
Turnaound Time: (or expected date of results)	ime: (or exp	ected date of	f results)		Peachtree Corners, GA 30092	
21 days					770-734-4203	
Rush Charges Authorized: Yes No x	s Authorized	: Yes Nox	Signature:		Date of Sample Transfer	
Sample	Sample	No. of	Project	Laboratory	O/ LT/ LOLO	
Date	Time	Containers	#OI	#	Requested	Remarks
5/24/2016	10:24		HGWC-18	103585001	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	8
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Transfer By (Signature):	Signature):	ni Soordi			Received By: MM Jutes	
Camments /	Samples pre	served with	Camments√ Samples preserved with HNO3 to <2 pH		Date / Time: 6-78-16 1030	
∍ 9						

Sample Cond	ition Upon Rece	eipt P	ittsb	urg	ıh				
1	Client Name:					Project#_	301	88	0 1
Courier: X Fed Ex 1	ups	nt 🗆	Commo	ercial	Pace Other				
Custody Seal on Cooler/i		ΙX	ho		ls intact: 🔲 yes	no no			
Thermometer Used	NIA	Туре	of Ice:	We	et Blue None				
Cooler Temperature	Observed Temp		°C	Cor	rection Factor:	°C Final Te	emp <u>:</u>		С
Temp should be above freezing	ng to 6°C					Date and ini	fials of pers	on examin	ina
		Von	No	N/A	n	contents:_	A/:		
Comments:		Yes	100	18//-	1			<u>-8-16</u>	
Chain of Custody Present:		X			1.				
Chain of Custody Filled Ou		$\frac{1}{\lambda}$			2.				
Chain of Custody Relinquis		-4	X		3.	·			
Sampler Name & Signature		V	_/_		4. 5.				
Sample Labels match COC									
-Includes date/time/ID/A		V		·	6.				
Samples Arrived within Hold			X						\neg
Short Hold Time Analysis			$\frac{1}{\lambda}$		7.				
Rush Turn Around Time F	Requested:	Y	\sim		8.				\neg
Sufficient Volume:		1			9.				_
Correct Containers Used:			X						
-Pace Containers Used:		V	-/\-			,			
Containers Intact:				X	11.				
Fiftered volume received for All containers needing preservation		χ	-	Δ	12.				$\overline{}$
All containers needing preserva compliance with EPA recomme	ition are found to be in	Χ			13. pH2Z				
		•			Initial when completed	Date/time of			
exceptions: VOA, coliform,	TOC, O&G, Phenolics				Lot # of added	preservation			_
					preservative				
Headspace in VOA Vials (>	6mm):			χ_	14.				
Trip Blank Present:				X	15.				
Trip Blank Custody Seals Pr	esent			Χ_					
Client Notification/ Resolu	tion:								
Person Contacted:				oate/1	Time:	Contacted	I В <u>у:</u>		
Comments/ Resolution:									
					<u>,</u>			···	

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"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow

Ra-226	JAL	7/20/2016	30422	ΔM	
Test:	Analyst:	Date:	Worklist:	Matrix:	

Method Blank Assessment

Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:

Sample Matrix Spike Control Assessment

ل الادSD304	LCSD (Y or N)? LCS30422	control Sample Assessment
	Pass	MB Status vs. MDC:
	ΝΆ	MB Status vs Numerical Indicator:
	0.26	MB Numerical Performance Indicator:
	0.226	MB MDC:
	0.086	. M/B Counting Uncertainty:
	0.011	MB concentration:
	1111688	MB Sample ID

MS Target Conc.(pCl/L, g, F): MSD Aliquot (L, g, F): Spike uncertainty (calculated):

MSD Target Conc. (pCi/L, g, F):

Sample Result:

Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result Counting Uncertainty (pCl/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:

Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F):

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

	_			_					_					
×	LCSD30422	7/26/2016	16-001	47.784	0.10	0.510	9.375	0.441	7.582	0.629	4.58	80.88%	N/A	Pass
LCSD (Y or N)?	LCS30422	7/26/2016	16-001	47.784	0.10	0.514	9.302	0.438	7.454	0.614	4.81	80.12%	ΝΑ	Pass
Laboratory Control Sample Assessment		Count Date:	Spike I.D.:	Spike Concentration (pCi/mL):	(ML):	Aliquot Volume (L, g, F):	Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCI/L, g, F):	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	Numerical Performance Indicator:	Percent Recovery:	Status vs Numerical Indicator:	Status vs Recovery:

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 (pCt/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 Dunicate Status vs RPD:
80.88%	A/N	Pass		Enter Duplicate	sample IDs if	other than	LCS/LCSD in the	space below.						
80.12%	NA	Pass		LCS30422	LCSD30422	7.454	0.614	7.582	0.629	ON.	-0.287	1.71%	N/A	Pass

Duplicate Sample I.D.
Sample Result (Curl. g, F):
Sample Result Counting Uncertainty (pcil., g, F):
Sample Duplicate Result (pcil., g, F):
Are sample and/or duplicate results below MDC?

Duplicate RPD:

Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD

Sample I.D.:

Duplicate Sample Assessment

Status vs RPC

elow the MDC.		6
## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.		Z.
sample or		- Commission of the Commission
le if either the		
s not applicab		
ate precision i		٠
tion of duplica		
## Evalua	Comments:	

Printed: 7/28/2016 1:11 PM TAR DW QC

1 of 1

Pace Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date:

Sample Matrix Spike Control Assessment

Sample I.D. Sample MS I.D. Spike I.D.:

Sample MSD I.D.

Ra-228 JLW

7/21/2016 30411 DW Worklist: Matrix: Analyst: Date:

MB Sample ID

Method Blank Assessment

0.331 0.302 0.624 2.15 N/A Pass MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC: MB concentration: M/B Counting Uncertainty: MB MDC:

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):

Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL):

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Sample Result Counting Uncertainty (pCl/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):

MSD Numerical Performance Indicator:

MS Numerical Performance Indicator:

MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:

MS Status vs Recovery:

MSD Status vs Recovery

Sample Result:

LCSD30411 LCS30411 N io ∖) Count Date Spike I.D.:

aboratory Control Sample Assessment

16-025 26.094 0.20 0.818 6.379 0.459 6.024 0.765 -0.78 94.44% 772772016 16-025 26.094 0.20 0.810 6.447 0.464 6.658 0.796 0.45 Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated): Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Spike Concentration (pCi/mL): Volume Used (mL): Numerical Performance Indicator:

Matrix Spike/Matrix Spike Duplicate Sample Assessment Enter Duplicate sample IDs if ٧ CS30411 Ϋ́ Percent Recovery: Status vs Numerical Indicator: Sample I.D.: Status vs Recovery

Duplicate Sample Assessment

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): he space below LCS/LCSD in other than LCSD30411 6.658 0.796 6.024 0.765 NO 1.125 9.99% N/A Pass Sample Duplicate Result (pCifL, g, F): Sample Duplicate Result Counting Uncertainty (pCifL, g, F): Are sample and/or duplicate results below MDC? Sample Result Counting Uncertainty (pCi/L, g, F): Sample Result (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Sample I.D.

Sample Matrix Spike Result:

Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Result Counting Uncertainty (PCi/L, g, F): Sample Matrix Spike Duplicate Result.

MS/ MSD Duplicate RPD: Duplicate Numerical Performance Indicator:

MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:

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

Duplicate Status vs RPD

Comments:



Ra-228 NELAC DW2 Printed: 7/28/2016 1:13 PM

1 of 1



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: AZH0981
September 08, 2016
Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

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All test results relate only to the samples analyzed.



Georgia Power 2480 Maner Road Atlanta GA, 30339 PACE ANALYTICAL SERVICES, INC.

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

Attention: Mr. Joju Abraham September 08, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-5	AZH0981-01	Ground Water	08/30/16 11:21	08/31/16 13:00
HGWA-6	AZH0981-02	Ground Water	08/30/16 12:10	08/31/16 13:00
HGWA-1	AZH0981-03	Ground Water	08/30/16 12:35	08/31/16 13:00
HGWA-2	AZH0981-04	Ground Water	08/30/16 13:40	08/31/16 13:00
HGWA-3	AZH0981-05	Ground Water	08/30/16 14:39	08/31/16 13:00
HGWA-4	AZH0981-06	Ground Water	08/30/16 14:35	08/31/16 13:00



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

Report No.: AZH0981 Client ID: HGWA-5

Date/Time Sampled: 8/30/2016 11:21:00AM

Matrix: Ground Water

September 08, 2016

Project: CCR Event

Lab Number ID: AZH0981-01

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	141	25	10	mg/L	SM 2540 C		1	09/01/16 12:00	09/01/16 12:00	6090007	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 08:30	6090013	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	09/01/16 10:00	09/02/16 08:30	6090013	RLC
Sulfate	23	1.0	0.05	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 08:30	6090013	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 12:49	6090039	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Barium	0.0548	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Boron	0.0068	0.100	0.0064	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 12:49	6090039	CSW
Calcium	28.0	2.50	0.155	mg/L	EPA 6020B		5	09/02/16 10:10	09/03/16 15:18	6090039	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Cobalt	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Lithium	0.0030	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 18:21	6090039	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/02/16 08:45	09/02/16 13:04	6090041	MTC



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

Report No.: AZH0981 Client ID: HGWA-6

Date/Time Sampled: 8/30/2016 12:10:00PM

Matrix: Ground Water

September 08, 2016

Project: **CCR Event**

Lab Number ID: AZH0981-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	232	25	10	mg/L	SM 2540 C		1	09/01/16 12:00	09/01/16 12:00	6090007	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 10:16	6090013	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	09/01/16 10:00	09/02/16 10:16	6090013	RLC
Sulfate	36	1.0	0.05	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 10:16	6090013	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 12:53	6090039	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Barium	0.212	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Boron	0.0140	0.100	0.0064	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 12:53	6090039	CSW
Calcium	53.9	5.00	0.311	mg/L	EPA 6020B		10	09/02/16 10:10	09/03/16 15:24	6090039	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Lithium	0.0095	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 18:27	6090039	CSW
Mercury	0.000044	0.00050	0.000041	mg/L	EPA 7470A	B-01, J	1	09/02/16 08:45	09/02/16 13:06	6090041	MTC



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

Report No.: AZH0981
Client ID: HGWA-1

Date/Time Sampled: 8/30/2016 12:35:00PM

Matrix: Ground Water

September 08, 2016

Project: CCR Event

Lab Number ID: AZH0981-03

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	330	25	10	mg/L	SM 2540 C		1	09/01/16 12:00	09/01/16 12:00	6090007	JPT
Inorganic Anions											
Chloride	6.0	0.25	0.01	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 10:37	6090013	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	09/01/16 10:00	09/02/16 10:37	6090013	RLC
Sulfate	36	1.0	0.05	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 10:37	6090013	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 12:57	6090039	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Barium	0.0293	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Boron	0.0074	0.100	0.0064	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 12:57	6090039	CSW
Calcium	97.5	5.00	0.311	mg/L	EPA 6020B		10	09/02/16 10:10	09/03/16 15:30	6090039	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:32	6090039	CSW
Mercury	0.00004	0.00050	0.000041	mg/L	EPA 7470A	B-01, J	1	09/02/16 08:45	09/02/16 13:08	6090041	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZH0981 Client ID: HGWA-2

Date/Time Sampled: 8/30/2016 1:40:00PM

Matrix: Ground Water

September 08, 2016

Project: CCR Event

Lab Number ID: AZH0981-04

Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
168	25	10	mg/L	SM 2540 C		1	09/01/16 12:00	09/01/16 12:00	6090007	JPT
6.2	0.25	0.01	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 10:58	6090013	RLC
0.06	0.30	0.02	mg/L	EPA 300.0	J	1	09/01/16 10:00	09/02/16 10:58	6090013	RLC
42	1.0	0.05	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 10:58	6090013	RLC
ND	0.0030	8000.0	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 13:02	6090039	CSW
0.0017	0.0050	0.0016	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
0.131	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
ND	0.0030	80000.0	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 13:02	6090039	CSW
0.0173	0.100	0.0064	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 13:02	6090039	CSW
26.4	2.50	0.155	mg/L	EPA 6020B		5	09/02/16 10:10	09/03/16 15:35	6090039	CSW
ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
0.0280	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:52	6090039	CSW
0.00004	0.00050	0.000041	mg/L	EPA 7470A	B-01, J	1	09/02/16 08:45	09/02/16 13:11	6090041	MTC
	168 6.2 0.06 42 ND 0.0017 0.131 ND 0.0173 ND 26.4 ND 0.0280 ND ND ND ND ND ND	168 25 6.2 0.25 0.06 0.30 42 1.0 ND 0.0030 0.0017 0.0050 0.131 0.0100 ND 0.0030 0.0173 0.100 ND 0.0010 26.4 2.50 ND 0.0100 0.0280 0.0100 ND 0.0050 ND 0.0100 ND 0.0500	168 25 10 6.2 0.25 0.01 0.06 0.30 0.02 42 1.0 0.05 ND 0.0030 0.0008 0.0017 0.0050 0.0016 0.131 0.0100 0.0004 ND 0.0030 0.00008 0.0173 0.100 0.0004 ND 0.0010 0.00007 26.4 2.50 0.155 ND 0.0100 0.0009 0.0280 0.0100 0.0005 ND 0.0050 0.0001 ND 0.0100 0.0017 ND 0.0100 0.0010 ND 0.0100 0.0010 ND 0.0100 0.0002 ND 0.0500 0.0021	168 25 10 mg/L 6.2 0.25 0.01 mg/L 0.06 0.30 0.02 mg/L 42 1.0 0.05 mg/L ND 0.0030 0.0008 mg/L 0.0017 0.0050 0.0016 mg/L ND 0.0030 0.0004 mg/L ND 0.0030 0.0004 mg/L ND 0.0030 0.00008 mg/L ND 0.0100 0.0004 mg/L ND 0.0100 0.0007 mg/L ND 0.0100 0.0009 mg/L ND 0.0100 0.0009 mg/L ND 0.0100 0.0005 mg/L ND 0.0100 0.0005 mg/L ND 0.0100 0.0001 mg/L ND 0.0100 0.0017 mg/L ND 0.0100 0.0010 mg/L ND 0.0100 0.0002 mg/L ND 0.00500 0.00021 mg/L	168 25 10 mg/L SM 2540 C 6.2 0.25 0.01 mg/L EPA 300.0 0.06 0.30 0.02 mg/L EPA 300.0 42 1.0 0.05 mg/L EPA 300.0 ND 0.0030 0.0008 mg/L EPA 6020B 0.0017 0.0050 0.0016 mg/L EPA 6020B ND 0.0030 0.0004 mg/L EPA 6020B ND 0.0030 0.00008 mg/L EPA 6020B ND 0.0030 0.00008 mg/L EPA 6020B ND 0.0030 0.00008 mg/L EPA 6020B ND 0.0010 0.0004 mg/L EPA 6020B ND 0.0100 0.0007 mg/L EPA 6020B 26.4 2.50 0.155 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0010 mg/L EPA 6020B ND 0.0100 0.0010 mg/L EPA 6020B ND 0.0100 0.0010 mg/L EPA 6020B ND 0.0100 0.0002 mg/L EPA 6020B	168	168	Result RL MDL Units Method Qual. DF Date 168 25 10 mg/L SM 2540 C 1 09/01/16 12:00 6.2 0.25 0.01 mg/L EPA 300.0 1 09/01/16 10:00 0.06 0.30 0.02 mg/L EPA 300.0 J 1 09/01/16 10:00 42 1.0 0.05 mg/L EPA 6020B J 1 09/02/16 10:10 0.0017 0.0050 0.0016 mg/L EPA 6020B J 1 09/02/16 10:10 0.131 0.0100 0.0004 mg/L EPA 6020B J 1 09/02/16 10:10 ND 0.0030 0.0008 mg/L EPA 6020B J 1 09/02/16 10:10 0.0173 0.100 0.0064 mg/L EPA 6020B J 1 09/02/16 10:10 ND 0.0010 0.0007 mg/L EPA 6020B J 09/02/16 10:10 ND 0.0100	Result RL MDL Units Method Qual. DF Date Date 168 25 10 mg/L SM 2540 C 1 09/01/16 12:00 09/01/16 12:00 09/01/16 12:00 6.2 0.25 0.01 mg/L EPA 300.0 1 09/01/16 10:00 09/02/16 10:58 0.06 0.30 0.02 mg/L EPA 300.0 J 1 09/01/16 10:00 09/02/16 10:58 42 1.0 0.05 mg/L EPA 6020B J 1 09/02/16 10:10 09/02/16 10:58 ND 0.0030 0.0016 mg/L EPA 6020B J 1 09/02/16 10:10 09/02/16 10:58 ND 0.0030 0.0004 mg/L EPA 6020B J 1 09/02/16 10:10 09/02/16 18:52 ND 0.0030 0.00008 mg/L EPA 6020B J 1 09/02/16 10:10 09/02/16 18:52 ND 0.0010 0.00004 mg/L EPA 6020B J 1 09/02	Result RL MDL Units Method Qual. DF Date Date Batch 168 25 10 mg/L SM 2540 C 1 09/01/16 12:00 09/01/16 12:00 6090007 6.2 0.25 0.01 mg/L EPA 300.0 1 09/01/16 10:00 09/02/16 10:58 6090013 0.06 0.30 0.02 mg/L EPA 300.0 J 1 09/01/16 10:00 09/02/16 10:58 6090013 ND 0.0030 0.0056 mg/L EPA 6020B J 1 09/02/16 10:10 09/02/16 10:58 6090013 ND 0.0030 0.0016 mg/L EPA 6020B J 1 09/02/16 10:10 09/02/16 10:58 6090039 0.131 0.0100 0.0004 mg/L EPA 6020B J 1 09/02/16 10:10 09/02/16 18:52 6090039 ND 0.0330 0.0008 mg/L EPA 6020B J 1 09/02/16 10:10 09/03/16 13:02 6090039



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

Report No.: AZH0981 Client ID: HGWA-3

Date/Time Sampled: 8/30/2016 2:39:00PM

Matrix: Ground Water

September 08, 2016

Project: CCR Event

Lab Number ID: AZH0981-05

Date/Time Received: 8/31/2016 1:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	254	25	10	mg/L	SM 2540 C		1	09/01/16 12:00	09/01/16 12:00	6090007	JPT
Inorganic Anions											
Chloride	6.4	0.25	0.01	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 11:20	6090013	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	09/01/16 10:00	09/02/16 11:20	6090013	RLC
Sulfate	40	1.0	0.05	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 11:20	6090013	RLC
Metals, Total											
Antimony	ND	0.0030	8000.0	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 13:06	6090039	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Barium	0.113	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 13:06	6090039	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 13:06	6090039	CSW
Calcium	65.1	5.00	0.311	mg/L	EPA 6020B		10	09/02/16 10:10	09/03/16 15:41	6090039	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Lithium	0.0025	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 18:58	6090039	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/02/16 08:45	09/02/16 13:13	6090041	MTC



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

Report No.: AZH0981 Client ID: HGWA-4

Date/Time Sampled: 8/30/2016 2:35:00PM

Matrix: Ground Water

September 08, 2016

Project: CCR Event

Lab Number ID: AZH0981-06

Date/Time Received: 8/31/2016 1:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	292	25	10	mg/L	SM 2540 C		1	09/01/16 12:00	09/01/16 12:00	6090007	JPT
Inorganic Anions											
Chloride	4.9	0.25	0.01	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 11:41	6090013	RLC
Fluoride	0.06	0.30	0.02	mg/L	EPA 300.0	J	1	09/01/16 10:00	09/02/16 11:41	6090013	RLC
Sulfate	6.8	1.0	0.05	mg/L	EPA 300.0		1	09/01/16 10:00	09/02/16 11:41	6090013	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 13:11	6090039	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Barium	0.0310	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 13:11	6090039	CSW
Boron	0.0072	0.100	0.0064	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 10:10	09/03/16 13:11	6090039	CSW
Calcium	85.7	5.00	0.311	mg/L	EPA 6020B		10	09/02/16 10:10	09/03/16 16:11	6090039	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Lithium	0.0027	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 10:10	09/02/16 19:03	6090039	CSW
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	B-01, J	1	09/02/16 08:45	09/02/16 13:15	6090041	MTC



Attention: Mr. Joju Abraham

Report No.: AZH0981

PACE ANALYTICAL SERVICES, INC.

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

September 08, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090007 - SM 2540 C											
Blank (6090007-BLK1)						Prepare	ed & Anal	yzed: 09/0	1/16		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090007-BS1)						Prepare	ed & Anal	yzed: 09/0	1/16		
Total Dissolved Solids	396	25	10	mg/L	400.00		99	84-108			
Duplicate (6090007-DUP1)		Sou	ırce: AZH09	81-01		Prepare	ed & Anal	yzed: 09/0	1/16		
Total Dissolved Solids	127	25	10	mg/L		141			10	10	
Duplicate (6090007-DUP2)		Sou	ırce: AZH09	81-05		Prepare	ed & Anal	yzed: 09/0	1/16		
Total Dissolved Solids	264	25	10	mg/L		254			4	10	



Attention: Mr. Joju Abraham

Report No.: AZH0981

PACE ANALYTICAL SERVICES, INC.

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

September 08, 2016

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090013 - EPA 300.0											
Blank (6090013-BLK1)						Prepare	ed: 09/01/	16 Analyz	ed: 09/02	/16	
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6090013-BS1)						Prepare	ed: 09/01/	16 Analyz	ed: 09/02	/16	
Chloride	10.1	0.25	0.01	mg/L	10.010		101	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.010		105	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		102	90-110			
Matrix Spike (6090013-MS1)		Sou	ırce: AZH09	961-03		Prepare	ed: 09/01/	16 Analyz	ed: 09/02	/16	
Chloride	31.1	0.25	0.01	mg/L	10.010	23.0	81	90-110			QM-05
Fluoride	13.8	0.30	0.02	mg/L	10.010	0.14	137	90-110			QM-05
Sulfate	157	1.0	0.05	mg/L	10.010	164	NR	90-110			QM-05
Matrix Spike (6090013-MS2)		Sou	ırce: AZH09	983-03		Prepare	ed: 09/01/	16 Analyz	ed: 09/02	/16	
Chloride	12.3	0.25	0.01	mg/L	10.010	1.97	103	90-110			
Fluoride	10.9	0.30	0.02	mg/L	10.010	0.20	107	90-110			
Sulfate	22.6	1.0	0.05	mg/L	10.010	13.6	90	90-110			
Matrix Spike Dup (6090013-MSD1)		Sou	ırce: AZH09	961-03		Prepare	ed: 09/01/	16 Analyz	ed: 09/02	/16	
Chloride	30.4	0.25	0.01	mg/L	10.010	23.0	74	90-110	2	15	QM-05
Fluoride	12.8	0.30	0.02	mg/L	10.010	0.14	126	90-110	8	15	QM-05
Sulfate	156	1.0	0.05	mg/L	10.010	164	NR	90-110	0.7	15	QM-05



Attention: Mr. Joju Abraham

Report No.: AZH0981

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090039 - EPA 3005A											
Blank (6090039-BLK1)						Prepare	ed: 09/02/	16 Analyz	ed: 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	0.0005	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 (6090039-BS1)						Prepare	ed & Analy	/zed: 09/02	2/16		
Antimony	0.107	0.0030	0.0008	mg/L	0.10000		107	80-120			
Arsenic	0.0988	0.0050	0.0016	mg/L	0.10000		99	80-120			
Barium	0.102	0.0100	0.0004	mg/L	0.10000		102	80-120			
Beryllium	0.0950	0.0030	0.00008	mg/L	0.10000		95	80-120			
Boron	0.984	0.100	0.0064	mg/L	1.0000		98	80-120			
Cadmium	0.0997	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	0.102	0.0100	0.0009	mg/L	0.10000		102	80-120			
Cobalt	0.0962	0.0100	0.0005	mg/L	0.10000		96	80-120			
Copper	0.0964	0.0050	0.0005	mg/L	0.10000		96	80-120			
Lead	0.103	0.0050	0.0001	mg/L	0.10000		103	80-120			
Molybdenum	0.100	0.0100	0.0017	mg/L	0.10000		100	80-120			
Nickel	0.0973	0.0050	0.0006	mg/L	0.10000		97	80-120			
Selenium	0.0984	0.0100	0.0010	mg/L	0.10000		98	80-120			
Silver	0.0996	0.0050	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000		104	80-120			
Vanadium	0.0999	0.0100	0.0071	mg/L	0.10000		100	80-120			
Zinc	0.101	0.0100	0.0021	mg/L	0.10000		101	80-120			
Lithium	0.0964	0.0500	0.0021	mg/L	0.10000		96	80-120			

September 08, 2016



Georgia Power 2480 Maner Road

Atlanta GA, 30339

Report No.: AZH0981

Attention: Mr. Joju Abraham

September 08, 2016

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090039 - EPA 3005A											
Matrix Spike (6090039-MS1)		Source: AZI0015-01				Prepare	ed & Analy	yzed: 09/02	2/16		
Antimony	0.0992	0.0030	0.0008	mg/L	0.10000	ND.	99	75-125			
Arsenic	0.313	0.0050	0.0016	mg/L	0.10000	0.212	101	75-125			
Barium	0.146	0.0100	0.0004	mg/L	0.10000	0.0498	96	75-125			
Beryllium	0.0763	0.0030	0.00008	mg/L	0.10000	ND	76	75-125			
Boron	1.22	0.100	0.0064	mg/L	1.0000	0.632	59	75-125			QM-02
Cadmium	0.0869	0.0010	0.00007	mg/L	0.10000	ND	87	75-125			
Calcium	81.8	5.00	0.311	mg/L	1.0000	82.8	NR	75-125			QM-02
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	0.0010	104	75-125			
Cobalt	0.0941	0.0100	0.0005	mg/L	0.10000	ND	94	75-125			
Copper	0.0827	0.0050	0.0005	mg/L	0.10000	ND	83	75-125			
Lead	0.0884	0.0050	0.0001	mg/L	0.10000	ND	88	75-125			
Molybdenum	0.101	0.0100	0.0017	mg/L	0.10000	ND	101	75-125			
Nickel	0.0867	0.0050	0.0006	mg/L	0.10000	ND	87	75-125			
Selenium	0.0380	0.0100	0.0010	mg/L	0.10000	0.0015	36	75-125			QM-05
Silver	0.0820	0.0050	0.0005	mg/L	0.10000	ND	82	75-125			
Thallium	0.0908	0.0010	0.0002	mg/L	0.10000	ND	91	75-125			
Vanadium	0.113	0.0100	0.0071	mg/L	0.10000	ND	113	75-125			
Zinc	0.0878	0.0100	0.0021	mg/L	0.10000	ND	88	75-125			
Lithium	0.116	0.0500	0.0021	mg/L	0.10000	0.0389	77	75-125			
Matrix Spike Dup (6090039-MSD1)		Sou	urce: AZI001	5-01		Prepare	ed & Anal	yzed: 09/02	2/16		
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	ND	103	75-125	4	20	
Arsenic	0.314	0.0050	0.0016	mg/L	0.10000	0.212	102	75-125	0.2	20	
Barium	0.154	0.0100	0.0004	mg/L	0.10000	0.0498	104	75-125	5	20	
Beryllium	0.0784	0.0030	0.00008	mg/L	0.10000	ND	78	75-125	3	20	
Boron	1.29	0.100	0.0064	mg/L	1.0000	0.632	66	75-125	6	20	QM-02
Cadmium	0.0882	0.0010	0.00007	mg/L	0.10000	ND	88	75-125	1	20	
Calcium	83.2	5.00	0.311	mg/L	1.0000	82.8	44	75-125	2	20	QM-02
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	0.0010	103	75-125	0.3	20	
Cobalt	0.0918	0.0100	0.0005	mg/L	0.10000	ND	92	75-125	2	20	
Copper	0.0829	0.0050	0.0005	mg/L	0.10000	ND	83	75-125	0.3	20	
Lead	0.0885	0.0050	0.0001	mg/L	0.10000	ND	88	75-125	0.1	20	
Molybdenum	0.106	0.0100	0.0017	mg/L	0.10000	ND	106	75-125	4	20	
Nickel	0.0873	0.0050	0.0006	mg/L	0.10000	ND	87	75-125	0.7	20	
Selenium	0.0394	0.0100	0.0010	mg/L	0.10000	0.0015	38	75-125 75-125	4	20	QM-05
Silver	0.0858	0.0050	0.0005	mg/L	0.10000	0.0013 ND	86	75-125 75-125	4	20	QIVI-00
Thallium	0.0923	0.0010	0.0003	mg/L	0.10000	ND	92	75-125 75-125	2	20	
Vanadium	0.0923	0.0100	0.0002	mg/L	0.10000	ND	113	75-125 75-125	0.2	20	
Zinc	0.0872	0.0100	0.0071	-	0.10000	ND	87	75-125 75-125	0.2	20	
	0.0672	0.0100	0.0021	mg/L			87 83		0.7 5	20 20	
Lithium	0.122	0.0500	0.0021	mg/L	0.10000	0.0389	ರತ	75-125	э	∠0	



PACE ANALYTICAL SERVICES, INC.

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

September 08, 2016

Attention: Mr. Joju Abraham

Report No.: AZH0981

Metals, Total - Quality Control

					Spike	Source		%REC		RPD	
Analyte	Result	RL	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6090039 - EPA 3005	4										
Post Spike (6090039-PS1)		So	urce: AZI001	5-01	Prepared & Analyzed: 09/02/16						
Antimony	94.7			ug/L	100.00	0.0900	95	80-120			
Arsenic	300			ug/L	100.00	212	88	80-120			
Barium	148			ug/L	100.00	49.8	98	80-120			
Beryllium	79.2			ug/L	100.00	0.0500	79	80-120			QM-05
Boron	1270			ug/L	1000.0	632	63	80-120			QM-02
Cadmium	85.5			ug/L	100.00	0.0100	85	80-120			
Calcium	78800			ug/L	1000.0	82800	NR	80-120			QM-02
Chromium	96.6			ug/L	100.00	1.04	96	80-120			
Cobalt	90.7			ug/L	100.00	0.402	90	80-120			
Copper	80.9			ug/L	100.00	0.155	81	80-120			
Lead	88.7			ug/L	100.00	0.0713	89	80-120			
Molybdenum	102			ug/L	100.00	0.877	101	80-120			
Nickel	84.7			ug/L	100.00	0.391	84	80-120			
Selenium	92.6			ug/L	100.00	1.51	91	80-120			
Silver	82.9			ug/L	100.00	-0.0178	83	80-120			
Thallium	92.1			ug/L	100.00	-0.0163	92	80-120			
Vanadium	108			ug/L	100.00	4.05	104	80-120			
Zinc	86.1			ug/L	100.00	1.52	85	80-120			
Lithium	120			ug/L	100.00	38.9	81	80-120			
Batch 6090041 - EPA 7470 <i>A</i>	4										
Blank (6090041-BLK1)						Prepare	ed & Analy	yzed: 09/0:	2/16		
Mercury	0.00004	0.00050	0.000041	mg/L							
LCS (6090041-BS1)						Prepare	ed & Analy	yzed: 09/0	2/16		
Mercury	0.00248	0.00050	0.000041	mg/L	2.5000E-3		99	80-120			



Attention: Mr. Joju Abraham

Report No.: AZH0981

PACE ANALYTICAL SERVICES, INC.

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

September 08, 2016

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090041 - EPA 7470A											
Matrix Spike (6090041-MS1)		Sou	ırce: AZH09	81-01		Prepar	ed & Anal	yzed: 09/02	2/16		
Mercury	0.00254	0.00050	0.000041	mg/L	2.5000E-3	ND	102	75-125			
Matrix Spike Dup (6090041-MSD1	1)	Sou	ırce: AZH09	81-01		Prepar	ed & Anal	yzed: 09/0	2/16		
Mercury	0.00251	0.00050	0.000041	mg/L	2.5000E-3	ND	101	75-125	1	20	
Post Spike (6090041-PS1)		Sou	ırce: AZH09	81-01		Prepar	ed & Anal	yzed: 09/02	2/16		
Mercury	1.68			ug/L	1.6667	0.0265	99	80-120			



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 08, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit MDL - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

- **QM-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.

5 - NaOH/ZnAc, <6°C 7 - 56°C not frazen 6 - Na₂S₂O₃, 58°C REMARKS/ADDITIONAL INFORMATION 1- HCl, s6°C 2- H₂SO₆, s6°C 4 - NaOH, 56°C PRODUCT PRESERVATION SLUDGE S- SOLL SL- SLUDGE SD- SOLID CIOUND 3. HNO, A- AIR HO *MATRIX CODES 4 DRINKING WATER SURFACE WATER GROUNDWATER P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER STORM WATER WASTEWATER PAGE: ntered into LIMS CONTAINER TYPE WATER Tracking #: LAB# SW. - MG WW. GW. 4 2 Z D M M M M Pace Analytical Services, Inc. 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com J < 0 - 0 1300 OTHER BYTETIME DATE/TIME CLENT ANALYSIS REQUESTED COURIER # of Coolers Redium 226 8, 228 (SW-846 9916/9320) (EPA 300.0 & SM 2640C) d SAMPLE SHIPPED VIA CI' E' 20' 7 1D2 RELINQUISHED BY: (OYATX0S08 A93) n. Vi & III .qqA aleteM bustody Seat: UPS 3 cV 61 jo# M M 00Z - < - Z m Z 0 laburch@southernco.com Pace Analytical SAMPLE IDENTIFICATION DATE/TIME 8/30/2016 Heath McCorkle Maria Padilla HGWA-3 コムアイー 49×4-6 Hawa-+IGWA エグダイ DATE/TIME Plant Hammond AP 1&2 CCR CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER S CHAIN OF CUSTODY RECORD × × × 0 E < 0 0020 MATRIX CODE REQUESTED COMPLETION DATE: 3 3 3 33 36 3 241 Raiph McGill Blvd SE B10185 loju Abraham SAMPLED BY AND TITLE 14:39 12:35 14:35 2:40 01:21 PROJECT NAME/STATE Collection TIME 12: Atlanta, GA 30308 ECEIVED BY 30/16 8/30/16 8/30/16 1705/ 91/05/8 CLIENT NAME Georgia Power 104-506-7239 PROJECT #. EPORT TO Collection 8/30/16

2



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

LOG-IN CHECKLIST

Printed: 9/8/2016 2:30:23PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR EventWork Order:AZH0981Date Received:08/31/16 13:00Logged In By:Charles Hawks

OBSERVATIONS

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

Minimum Temp(C): 2.0 Maximum Temp(C): 2.0 Custody Seal(s) Used: N/A

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	NO
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:







September 27, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond AP 1&2

Pace Project No.: 30194833

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

Legalylellins

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

Plant Hammond AP 1&2 Project:

Pace Project No.: 30194833

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198 Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.



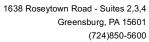
1638 Roseytown Road - Suites 2,3,4 Greensburg, PA 15601 (724)850-5600

SAMPLE SUMMARY

Project: Plant Hammond AP 1&2

Pace Project No.: 30194833

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30194833001	HGWA-5	Water	08/30/16 11:21	09/01/16 10:00
30194833002	HGWA-6	Water	08/30/16 12:10	09/01/16 10:00
30194833003	HGWA-1	Water	08/30/16 12:35	09/01/16 10:00
30194833004	HGWA-2	Water	08/30/16 13:40	09/01/16 10:00
30194833005	HGWA-3	Water	08/30/16 14:39	09/01/16 10:00
30194833006	HGWA-4	Water	08/30/16 14:35	09/01/16 10:00





SAMPLE ANALYTE COUNT

Project: Plant Hammond AP 1&2

Pace Project No.: 30194833

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30194833001	HGWA-5	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194833002	HGWA-6	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194833003	HGWA-1	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194833004	HGWA-2	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194833005	HGWA-3	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194833006	HGWA-4	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2

Pace Project No.: 30194833 Sample: HGWA-5 Lab ID: 30194833001 Collected: 08/30/16 11:21 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 EPA 9315 1.97 ± 0.546 (0.418) Radium-226 09/10/16 11:07 13982-63-3 pCi/L C:89% T:NA Radium-228 EPA 9320 $0.450 \pm 0.399 \quad (0.788)$ pCi/L 09/14/16 02:38 15262-20-1 C:77% T:67% Total Radium Total Radium 2.42 ± 0.945 (1.21) pCi/L 09/20/16 10:15 7440-14-4 Calculation Sample: HGWA-6 Lab ID: 30194833002 Collected: 08/30/16 12:10 Received: 09/01/16 10:00 Matrix: Water PWS: Site ID: Sample Type: Act ± Unc (MDC) Carr Trac **Parameters** Method Units Analyzed CAS No. Qual EPA 9315 0.107 ± 0.156 (0.335) Radium-226 pCi/L 09/10/16 11:07 13982-63-3 C:87% T:NA EPA 9320 0.839 ± 0.520 (0.964) Radium-228 09/14/16 02:38 15262-20-1 pCi/L C:77% T:59% Total Radium Total Radium 0.946 ± 0.676 (1.30) pCi/L 09/20/16 10:15 7440-14-4 Calculation Sample: HGWA-1 Lab ID: 30194833003 Collected: 08/30/16 12:35 Received: 09/01/16 10:00 PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed Radium-226 EPA 9315 $0.0200 \pm 0.128 \quad (0.341)$ pCi/L 09/10/16 11:07 13982-63-3 C:89% T:NA Radium-228 EPA 9320 0.561 ± 0.450 (0.872)pCi/L 09/14/16 02:53 15262-20-1 C:69% T:68% Total Radium Total Radium 0.581 ± 0.578 (1.21) pCi/L 09/20/16 10:15 7440-14-4 Calculation Sample: HGWA-2 Lab ID: 30194833004 Collected: 08/30/16 13:40 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 EPA 9315 0.428 ± 0.279 (0.453) Radium-226 pCi/L 09/10/16 11:07 13982-63-3 C:81% T:NA EPA 9320 Radium-228 0.624 ± 0.362 (0.652) 09/14/16 02:38 15262-20-1 pCi/L C:73% T:81% Total Radium 1.05 ± 0.641 (1.11) Total Radium pCi/L 09/20/16 10:15 7440-14-4 Calculation Sample: HGWA-3 Lab ID: 30194833005 Collected: 08/30/16 14:39 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 EPA 9315 $-0.0517 \pm 0.107 \quad (0.360)$ Radium-226 pCi/L 09/10/16 11:08 13982-63-3 C:91% T:NA FPA 9320 0.976 ± 0.559 (1.00) Radium-228 pCi/L 09/16/16 11:14 15262-20-1

REPORT OF LABORATORY ANALYSIS

C:76% T:50%

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2

Pace Project No.: 30194833

Sample: HGWA-3 Lab ID: 30194833005 Collected: 08/30/16 14:39 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

 Total Radium
 Total Radium
 0.976 ± 0.666 (1.36)
 pCi/L
 09/20/16 10:15 7440-14-4
 7440-14-4

Calculation

Sample: HGWA-4 Lab ID: 30194833006 Collected: 08/30/16 14:35 Received: 09/01/16 10:00 Matrix: Water

PWS: Site ID: Sample Type:

Parameters Method Act ± Unc (MDC) Carr Trac Units CAS No. Analyzed Qual 0.464 ± 0.373 (0.661) Radium-226 EPA 9315 pCi/L 09/10/16 11:03 13982-63-3 C:87% T:NA Radium-228 EPA 9320 0.383 ± 0.471 (0.977)pCi/L 09/16/16 10:56 15262-20-1 C:70% T:65% Total Radium Total Radium 0.847 ± 0.844 (1.64) pCi/L 09/20/16 10:15 7440-14-4 Calculation





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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2

Pace Project No.: 30194833

QC Batch: 232325 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30194833001, 30194833002, 30194833003, 30194833004, 30194833005, 30194833006

METHOD BLANK: 1138696 Matrix: Water

Associated Lab Samples: 30194833001, 30194833002, 30194833003, 30194833004, 30194833005, 30194833006

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.257 ± 0.225 (0.422) C:92% T:NA
 pCi/L
 09/10/16 11:08

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.





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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2

Pace Project No.: 30194833

QC Batch: 232397 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30194833001, 30194833002, 30194833003, 30194833004, 30194833005, 30194833006

METHOD BLANK: 1138978 Matrix: Water

Associated Lab Samples: 30194833001, 30194833002, 30194833003, 30194833004, 30194833005, 30194833006

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.619 ± 0.406 (0.768) C:79% T:72%
 pCi/L
 09/16/16 10:55

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





Greensburg, PA 15601 (724)850-5600

QUALIFIERS

Project: Plant Hammond AP 1&2

Pace Project No.: 30194833

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: 30194833001

[1] The sampler's name and signature were not listed on the COC.

Sample: 30194833006

Date: 09/27/2016 09:30 AM

[1] Low volume, container was 1/2 full. Client advised.

REPORT OF LABORATORY ANALYSIS

CHAIN OF CUSTODY RECORD

Pace Analytical "

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

QF

PAGE:

ე.9 | | 7 - ≤6°C not frozen 5 - NaOH/ZnAc, ≤6 6 - Na₂S₂O₃, ≤6°C REMARKS/ADDITIONAL INFORMATION 1 - HCl, ≤6°C 2 - H₂SO₄, ≤6°C 4 - NaOH, ≤6°C P - PRODUCT **PRESERVATION** SL- SLUDGE 003 8 L- LIQUID SD - SOLID $\overline{\zeta}$ 3 - HNO3 S - SOIL A- AIR C (r 0 FOR LAB USE ONL *MATRIX CODES DRINKING WATER SW - SURFACE WATER ST - STORM WATER GW - GROUNDWATER MW - WASTEWATER A - AMBER GLASS G - CLEAR GLASS intered into LIMS ONTAINER TYPE S - STERILE O - OTHER V - VOA VIAL P - PLASTIC WATER Tracking# WO#:30194833 AB# - MO Ν̈́ _1 ≪ m **-** □ $Z \supset \Sigma \otimes W \otimes C$ 1300 OTHER B) ISTYME DATE/TIME CLIENT/ Cooler II 3010123 ANALYSIS REQUES COURIER # of Coolers (0ZE6/91E6 918-MS) Radium 226 & 228 (EPA 300.0 & SM 2640C) l٩ CI, F, SO, & TDS SAMPLE SHIPPED VIA UPS FED-EX RELINQUISHED BY (EPA 6020/7470) REUNDUISHED BY Metals App. III & IV Custody Seat: CONTAINER TYPE: PRESERVATION: **\^**) # of M M M ϵ_{V} ပဝ z V laburch@southernco.com SAMPLE IDENTIFICATION DATE/TIME: 8/30/2016 Heath McCorkle Maria Padilla ナスシャ・ア ゴーケスとエ HGWA-3 ナダダイー Hand-G ナスのです サスひよ DATE/TIME Plant Hammond AP 1&2 るを CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Raiph McGill Bivd SE B10185 ₩ ₩ ö $\overline{\times}$ × X × 0×4 × ೨೦೬೯ MATRIX CODE* REQUESTED COMPLETION DATE: と چ ک 3 ₹ <u>ک</u> ک と Joju Abraham 15:40 SAMPLED BY AND TITLE 12.35 14:39 14:35 PROJECT NAME/STATE 01:21 Collection 言 TIME Atlanta, GA 30308 eceved RECEIVED BY CLIENT NAME 97/05/8 Georgia Power 11/05/8 13014 404-506-7239 8130/16 8/3c/16 REPORT TO: Collection DATE 8/30/16 PROJECT

000 3-1-3

Sample Condition Upon Rece	ipt P	ittsb	urgl)
Client Name:		<u> 0</u> 8	2019	ia Power Project # 30 1 9 4 8 3 3
Courier: Fed Ex UPS USPS Clien				
Custody Seal on Cooler/Box Present: yes				intact: yes no
				Blue None
Cooler Temperature Observed Temp	14	, C	Corre	ection Factor: °C Final Temp: °C
Temp should be above freezing to 6°C				Date and Initials of person examining
		T NI=	L NI/A	Date and Initials of person examining contents:
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:			<u> </u>	5. · · · · · · · · · · · · · · · · · · ·
-Includes date/time/ID/Analysis Matrix:	W	<u> </u>	T	
Samples Arrived within Hold Time:			-	6.
Short Hold Time Analysis (<72hr remaining):			<u> </u>	7.
Rush Turn Around Time Requested:		/		8. 11C) A 4
Sufficient Volume:				9. low volume HGWA-4
Correct Containers Used:				10.
-Pace Containers Used:			<u> </u>	·
Containers Intact:	- A			.11.
Filtered volume received for Dissolved tests				12.
All containers needing preservation have been checked.				13. 1 al O. D. H
All containers needing preservation are found to be in compliance with EPA recommendation.				13. below 2 PH
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when Completed Completed 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: BLM Date: 9-1-16
Client Notification/ Resolution:				
Person Contacted:			Date/	Time: Contacted By:
Comments/ Resolution:				

Militaria de Militaria de Comencial de Militaria de Comencia de Comencia de Militaria de Comencia de C

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.

Pace Analytical

9/14/2016 Ra-228 N_V Test: Date: Worklist: Matrix: Analyst:

31282 DW

Sample I.D. Sample MS I.D. Sample MSD I.D.

Sample Collection Date:

Sample Matrix Spike Control Assessment

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): Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Result:

0.619 0.390 0.768 MB Sample ID MB concentration: M/B Counting Uncertainty: MB Numerical Performance Indicator: MB MDC MB Status vs Numerical Indicator:

Method Blank Assessment

N/A Pass MB Status vs. MDC Laboratory Control Sample Assessmen

LCS31282 9/16/2016 Count Date:

LCSD31282

16-025 25.659 0.30 0.806 9.546 0.687 Aliquot Volume (L. g, F): Spike I.D.: Spike Concentration (pCi/mL): Volume Used (mL): Target Conc. (pCi/L, g, F): Uncertainty (Calculated):

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Duplicate Result.

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

Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Percent Recovery: Status vs Numerical Indicator:

0.43 0.983 Ϋ́ Numerical Performance Indicator: Status vs Recovery

Duplicate Sample Assessment

other than LCS/LCSD in Enter Duplicate the space below sample IDs if Dupticate Sample I.D. 30194831002DUP Sample Result (COLL, g, F): 1.058 Sample Result (COLL, g, F): 0.536 Sample Dupticate Result (COLL, g, F): 0.535 30194831002 See Below ## 0.486 Sample I.D.:

Sample MS I.D. Sample MSD I.D.

Sample I.D.

Sample Matrix Spike Result

Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Duplicate Result:

(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:

Duplicate Numerical Performance Indicator

0.285 10.46% N/A Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC? Duplicate Numerical Performance Indicator: Duplicate RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC. Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD:

MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:

Comments:

1 of 1

TAR_31262_W Total Alpha Radium (R104-2 17Mar2014).xis



Quality Control Sample Performance Assessment

Ra-226 Test

Analyst Must Manually Enter All Fields Highlighted in Yellow.

	300	102-220	
	Analyst:	WRR	
	Date:	9/9/2016	
	Worklist:	31262	
	Matrix:	ΜO	
Method Blank Assessment			
	MB Sample ID	1138696	
	MB concentration:	0.257	
	M/B Counting Uncertainty:	0.222	
	MB MDC:	0.422	
	MB Numerical Performance Indicator:	2.27	
	MB Status vs Numerical Indicator:	A/N	
	MB Status vs. MDC:	Dace	

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 (pCl/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:

SD (Y or N)? LCS31262 9/10/2016

Count Date

Laboratory Control Sample Assessment

Spike I.D.

Spike Concentration (pCI/mL): Volume Used (mL):

1	(n) (n) (n) (n) (n)
	MSD Target Conc. (pCi/L, g, F)
z	Spike uncertainty (calculated
LCSD31262	Sample Resul
	Sample Result Counting Uncertainty (pCi/L, g, F)
	Sample Matrix Spike Resul
	Matrix Spike Result Counting Uncertainty (pCi/l., g, F)
	Sample Matrix Spike Duplicate Resul
	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

0.500 8.928 0.420 7.038 0.942 -3.59 78.83%

Result (pCI/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F):

Numerical Performance Indicator: Percent Recovery: Status vs Numerical Indicator:

Status vs Recovery

Duplicate Sample Assessment

Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated):

Sample I.D.	Sample MSD I.D. Sample MSD I.D. Sample Matrix Spike Result:	sult Counting Uncertainty (pCi/L, g, F):	of 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:
	S,	Matrix Spike Result Counting Uncertainty (pCi/l, g, F):	Matrix Spike Duplicate Result Counting Uncertainty (pC)/L, g, F):	Duplicate Numeric	MS/ MSD Duplicate Stati	MS/ MSD

other than LCS/LCSD in the space below.

0.261 0.230 0.024 0.254

Duplicate Sample I.D.
Sample Result (pCi/L, g, F):
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):
Are sample and/or duplicate results below MDC?

See Below ##

1.357 166.19% N/A Fall***

Duplicate Numerical Performance Indicator: Duplicate RPD:

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD;

Enter Duplicate sample IDs if

30194831002DUP 30194831002

Sample I.D.:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

Comments:

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

TAR DW QC Printed: 9/26/2016 3:32 PM

1 of 1



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: AZI0077
September 14, 2016
Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

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All test results relate only to the samples analyzed.



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

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-7	AZI0077-01	Ground Water	09/01/16 09:20	09/02/16 12:40
HGWC-8	AZI0077-02	Ground Water	09/01/16 08:50	09/02/16 12:40
HGWC-9	AZI0077-03	Ground Water	09/01/16 09:32	09/02/16 12:40
HGWC-10	AZI0077-04	Ground Water	09/01/16 10:18	09/02/16 12:40
HGWC-11	AZI0077-05	Ground Water	09/01/16 10:48	09/02/16 12:40
HGWC-12	AZI0077-06	Ground Water	09/01/16 11:34	09/02/16 12:40
HGWC-13	AZI0077-07	Ground Water	09/01/16 11:20	09/02/16 12:40
HGWC-14	AZI0077-08	Ground Water	09/01/16 12:07	09/02/16 12:40
HGWC-15	AZI0077-09	Ground Water	09/01/16 12:58	09/02/16 12:40
HGWC-16	AZI0077-10	Ground Water	09/01/16 12:50	09/02/16 12:40
HGWC-17	AZI0077-11	Ground Water	09/01/16 14:45	09/02/16 12:40
HGWC-18	AZI0077-12	Ground Water	09/01/16 14:32	09/02/16 12:40
FB-1	AZI0077-13	DI Water	09/01/16 09:21	09/02/16 12:40
FB-2	AZI0077-14	DI Water	09/01/16 12:18	09/02/16 12:40
FERB-1	AZI0077-15	DI Water	09/01/16 14:00	09/02/16 12:40
FERB-2	AZI0077-16	DI Water	09/01/16 15:28	09/02/16 12:40
Dup-1	AZI0077-17	Ground Water	09/01/16 00:00	09/02/16 12:40
Dup-2	AZI0077-18	Ground Water	09/01/16 00:00	09/02/16 12:40



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

Project: CCR Event
Lab Number ID: AZI0077-01

Report No.: AZI0077 Client ID: HGWC-7

Date/Time Received: 9/2/2016 12:40:00PM

September 14, 2016

Date/Time Sampled: 9/1/2016 9:20:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	484	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	50	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 16:25	6090177	RLC
Fluoride	0.51	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 13:32	6090177	RLC
Sulfate	100	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 16:25	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Barium	0.0747	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Boron	0.904	0.100	0.0064	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Calcium	96.3	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 17:38	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Molybdenum	0.0274	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Lithium	0.0025	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:39	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/07/16 08:50	09/07/16 17:41	6090124	MTC



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.: AZI0077
Client ID: HGWC-8

Project: CCR Event

Lab Number ID: AZI0077-02

Date/Time Sampled: 9/1/2016 8:50:00AM

Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	763	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	110	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 16:46	6090177	RLC
Fluoride	0.94	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 13:54	6090177	RLC
Sulfate	230	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 16:46	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Barium	0.0829	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Boron	1.91	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:33	6090121	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Calcium	135	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 12:57	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Cobalt	0.0023	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Molybdenum	0.481	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Lithium	0.0029	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:45	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/07/16 08:50	09/07/16 17:44	6090124	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-9

Project: CCR Event
Lab Number ID: AZI0077-03

Date/Time Sampled: 9/1/2016 9:32:00AM

Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	956	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	160	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 18:29	6090177	RLC
Fluoride	0.46	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 14:15	6090177	RLC
Sulfate	230	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 18:29	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Barium	0.130	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Boron	2.00	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:39	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Calcium	170	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:02	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Cobalt	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Molybdenum	0.0239	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Lithium	0.0044	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:50	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/07/16 08:50	09/07/16 17:46	6090124	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

R CI

Report No.: AZI0077	Project: CCR Event
Client ID: HGWC-10	Lab Number ID: AZI0077-04
Date/Time Sampled: 9/1/2016 10:18:00AM	Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	769	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	77	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 18:50	6090177	RLC
Fluoride	0.50	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 14:36	6090177	RLC
Sulfate	190	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 18:50	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Barium	0.0994	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Boron	0.786	0.100	0.0064	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Calcium	156	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:08	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Cobalt	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 20:56	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:50	6090109	MTC



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

Project: CCR Event

Lab Number ID: AZI0077-05

Date/Time Received: 9/2/2016 12:40:00PM

Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077 Client ID: HGWC-11

Date/Time Sampled: 9/1/2016 10:48:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	656	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	58	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 19:11	6090177	RLC
Fluoride	0.67	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 16:44	6090177	RLC
Sulfate	240	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 09:25	09/11/16 19:11	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Barium	0.0497	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Boron	1.49	0.100	0.0064	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Calcium	107	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:14	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Cobalt	0.0025	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Molybdenum	0.0259	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Selenium	0.0057	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:02	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:52	6090109	MTC



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.: AZI0077
Client ID: HGWC-12

Project: CCR Event

Lab Number ID: AZI0077-06

Date/Time Sampled: 9/1/2016 11:34:00AM

Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1480	25	10	mg/L	SM 2540 C		1	09/07/16 20:30	09/07/16 20:30	6090135	JPT
Inorganic Anions											
Chloride	140	2.5	0.14	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 19:31	6090177	RLC
Fluoride	0.62	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 17:48	6090177	RLC
Sulfate	300	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 19:31	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Arsenic	0.0043	0.0050	0.0016	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Barium	0.123	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Boron	2.28	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:45	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Calcium	179	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:19	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Cobalt	0.0016	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Molybdenum	0.0474	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Lithium	0.0118	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:08	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:54	6090109	MTC



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.: AZI0077 Client ID: HGWC-13 Project: CCR Event

Lab Number ID: AZI0077-07

Date/Time Sampled: 9/1/2016 11:20:00AM

Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	702	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	100	2.5	0.14	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 19:52	6090177	RLC
Fluoride	0.74	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 18:09	6090177	RLC
Sulfate	190	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 19:52	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Arsenic	0.314	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Barium	0.0700	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Boron	2.30	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:50	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Calcium	120	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:25	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Cobalt	0.0033	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Molybdenum	0.0336	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Lithium	0.0400	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:13	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:57	6090109	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-14

Project: CCR Event
Lab Number ID: AZI0077-08

Date/Time Sampled: 9/1/2016 12:07:00PM

Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	3200	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	510	25	1.4	mg/L	EPA 300.0		100	09/08/16 09:25	09/11/16 20:13	6090177	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 18:30	6090177	RLC
Sulfate	1300	100	5.1	mg/L	EPA 300.0		100	09/08/16 09:25	09/11/16 20:13	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Arsenic	0.0056	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Barium	0.0208	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Beryllium	0.0005	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Boron	12.3	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 13:56	6090121	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Calcium	586	50.0	3.11	mg/L	EPA 6020B		100	09/07/16 08:35	09/12/16 13:31	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Cobalt	0.0248	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Lead	0.0016	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Selenium	0.0137	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Thallium	0.0003	0.0010	0.0002	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:19	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:59	6090109	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: HGWC-15

Project: CCR Event
Lab Number ID: AZI0077-09

Date/Time Sampled: 9/1/2016 12:58:00PM

Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1180	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	200	2.5	0.14	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 20:33	6090177	RLC
Fluoride	0.22	0.30	0.02	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 18:51	6090177	RLC
Sulfate	440	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 20:33	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Barium	0.0364	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Boron	1.93	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 14:08	6090121	KLH
Cadmium	0.0017	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Calcium	189	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:37	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Cobalt	0.0450	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Lithium	0.0021	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:25	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:06	6090109	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077 Client ID: HGWC-16

Date/Time Sampled: 9/1/2016 12:50:00PM

Matrix: Ground Water

Project: CCR Event

Lab Number ID: AZI0077-10

Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	625	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	34	0.25	0.01	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 19:12	6090177	RLC
Fluoride	0.42	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 19:12	6090177	RLC
Sulfate	220	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 20:54	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Barium	0.0934	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Boron	1.31	0.100	0.0064	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Calcium	141	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 13:54	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Lithium	0.0033	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:31	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:09	6090109	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077 Client ID: HGWC-17 Project: CCR Event

Lab Number ID: AZI0077-11

Date/Time Sampled: 9/1/2016 2:45:00PM

Date/Time Received: 9/2/2016 12:40:00PM

Matrix: Ground Water

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	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	95	2.5	0.14	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 21:15	6090177	RLC
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 19:55	6090177	RLC
Sulfate	430	10	0.51	mg/L	EPA 300.0		10	09/08/16 09:25	09/11/16 21:15	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Barium	0.0227	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Boron	5.76	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 14:13	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Calcium	213	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 14:00	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Cobalt	0.0151	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Selenium	0.0014	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:48	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:11	6090109	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Report No.: AZI0077 Client ID: HGWC-18

Lab Number ID: AZI0077-12

Date/Time Sampled: 9/1/2016 2:32:00PM

Date/Time Received: 9/2/2016 12:40:00PM

September 14, 2016

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	2000	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	270	25	1.4	mg/L	EPA 300.0		100	09/08/16 09:25	09/11/16 21:35	6090177	RLC
Fluoride	0.49	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 21:41	6090177	RLC
Sulfate	890	100	5.1	mg/L	EPA 300.0		100	09/08/16 09:25	09/11/16 21:35	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Arsenic	0.0073	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Barium	0.0336	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Beryllium	0.0034	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Boron	8.80	1.00	0.0642	mg/L	EPA 6020B		10	09/07/16 08:35	09/13/16 14:19	6090121	KLH
Cadmium	0.0024	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Calcium	379	25.0	1.55	mg/L	EPA 6020B		50	09/07/16 08:35	09/12/16 14:05	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Cobalt	0.180	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Lead	0.0014	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Selenium	0.0347	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Lithium	0.0158	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:54	6090121	KLH
Mercury	0.00006	0.00050	0.000041	mg/L	EPA 7470A	J	1	09/06/16 11:30	09/06/16 17:13	6090109	MTC



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.: AZI0077 Client ID: FB-1

Project: CCR Event
Lab Number ID: AZI0077-13

Date/Time Sampled: 9/1/2016 9:21:00AM

Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	12	25	10	mg/L	SM 2540 C	J	1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	0.05	0.25	0.01	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 22:02	6090177	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 22:02	6090177	RLC
Sulfate	0.15	1.0	0.05	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 22:02	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Boron	0.0423	0.100	0.0064	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Calcium	0.0407	0.500	0.0311	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 21:59	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:16	6090109	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event
Lab Number ID: AZI0077-14

Report No.: AZI0077 Client ID: FB-2

Date/Time Received: 9/2/2016 12:40:00PM

September 14, 2016

Date/Time Sampled: 9/1/2016 12:18:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	32	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	09/08/16 09:25	09/08/16 22:24	6090177	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 22:24	6090177	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	09/08/16 09:25	09/08/16 22:24	6090177	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Boron	0.0221	0.100	0.0064	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Calcium	0.0317	0.500	0.0311	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/07/16 08:35	09/08/16 22:05	6090121	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:18	6090109	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: FERB-1

Project: CCR Event

Lab Number ID: AZI0077-15

Date/Time Sampled: 9/1/2016 2:00:00PM

Date/Time Received: 9/2/2016 12:40:00PM

Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
29	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
0.05	0.25	0.01	mg/L	EPA 300.0	J	1	09/08/16 19:50	09/10/16 18:14	6090212	RLC
ND	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:14	6090212	RLC
ND	1.0	0.05	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:14	6090212	RLC
0.0014	0.0030	0.0008	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
0.0012	0.0100	0.0004	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
0.0105	0.100	0.0064	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
0.0345	0.500	0.0311	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:35	6090169	CSW
ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:21	6090109	MTC
	0.05 ND ND ND 0.0014 ND 0.0012 ND 0.0105 ND 0.0345 ND ND ND ND ND ND	29 25 0.05 0.25 ND 0.30 ND 1.0 0.0014 0.0030 ND 0.0050 0.0012 0.0100 ND 0.0030 0.0105 0.100 ND 0.0010 ND 0.0100 ND 0.0500	29 25 10 0.05 0.25 0.01 ND 0.30 0.02 ND 1.0 0.055 0.0014 0.0030 0.0008 ND 0.0050 0.0016 0.0012 0.0100 0.0004 ND 0.0030 0.00008 0.0105 0.100 0.00007 0.0345 0.500 0.0311 ND 0.0100 0.0009 ND 0.0100 0.0009 ND 0.0100 0.0005 ND 0.0100 0.0005 ND 0.0100 0.0001 ND 0.0100 0.0017 ND 0.0100 0.0010 ND 0.0100 0.0010 ND 0.0100 0.0002 ND 0.0500 0.0021	29 25 10 mg/L 0.05 0.25 0.01 mg/L ND 0.30 0.02 mg/L ND 1.0 0.05 mg/L 0.0014 0.0030 0.0008 mg/L ND 0.0050 0.0016 mg/L 0.0012 0.0100 0.0004 mg/L ND 0.0030 0.00008 mg/L ND 0.0010 0.00007 mg/L ND 0.0010 0.0007 mg/L ND 0.0100 0.0005 mg/L ND 0.0100 0.0001 mg/L ND 0.0100 0.0017 mg/L ND 0.0100 0.0017 mg/L ND 0.0100 0.0010 mg/L ND 0.0100 0.0012 mg/L ND 0.0100 0.0002 mg/L ND 0.00500 0.00021 mg/L	29 25 10 mg/L SM 2540 C 0.05 0.25 0.01 mg/L EPA 300.0 ND 0.30 0.02 mg/L EPA 300.0 ND 1.0 0.05 mg/L EPA 300.0 O.0014 0.0030 0.0008 mg/L EPA 6020B ND 0.0050 0.0016 mg/L EPA 6020B ND 0.0030 0.0004 mg/L EPA 6020B ND 0.0030 0.0008 mg/L EPA 6020B ND 0.0030 0.00008 mg/L EPA 6020B ND 0.0010 0.0004 mg/L EPA 6020B ND 0.0010 0.00064 mg/L EPA 6020B ND 0.0010 0.00007 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0010 mg/L EPA 6020B ND 0.0100 0.0002 mg/L EPA 6020B	29 25 10 mg/L SM 2540 C 0.05 0.25 0.01 mg/L EPA 300.0 J ND 0.30 0.02 mg/L EPA 300.0 ND 1.0 0.05 mg/L EPA 300.0 ND 0.0050 0.0016 mg/L EPA 6020B 0.0012 0.0100 0.0004 mg/L EPA 6020B ND 0.0030 0.0008 mg/L EPA 6020B 0.0105 0.100 0.0004 mg/L EPA 6020B ND 0.0010 0.0007 mg/L EPA 6020B 0.0345 0.500 0.0311 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0010 mg/L EPA 6020B ND 0.0100 0.0002 mg/L EPA 6020B	29	Result RL MDL Units Method Qual. DF Date 29 25 10 mg/L SM 2540 C 1 09/07/16 21:25 0.05 0.25 0.01 mg/L EPA 300.0 1 09/08/16 19:50 ND 0.30 0.02 mg/L EPA 300.0 1 09/08/16 19:50 ND 1.0 0.05 mg/L EPA 300.0 1 09/08/16 19:50 ND 1.0 0.05 mg/L EPA 300.0 1 09/08/16 19:50 ND 1.0 0.05 mg/L EPA 300.0 1 09/08/16 19:50 ND 0.0014 0.005 0.005 mg/L EPA 300.0 1 09/08/16 19:50 0.0014 0.0050 0.0016 mg/L EPA 6020B J 1 09/08/16 19:50 0.0014 0.0050 0.00016 mg/L EPA 6020B J 1 09/08/16 10:40 0.0012 0.0100 0.00008 mg/L EPA 6020B	Result RL MDL Units Method Qual. DF Date Date 29 25 10 mg/L SM 2540 C 1 09/07/16 21:25 09/07/16 21:25 0.05 0.25 0.01 mg/L EPA 300.0 1 09/08/16 19:50 09/10/16 18:14 ND 0.30 0.02 mg/L EPA 300.0 1 09/08/16 19:50 09/10/16 18:14 ND 1.0 0.05 mg/L EPA 300.0 1 09/08/16 19:50 09/10/16 18:14 ND 0.0050 0.0016 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:35 ND 0.0010 0.0004 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:35 ND 0.0030 0.0004 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:35 ND 0.0100 0.0064 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:35	Result RL MDL Units Method Qual. DF Date Date Batch 29 25 10 mg/L SM 2540 C 1 09/07/16 21:25 09/07/16 21:25 6090136 0.05 0.25 0.01 mg/L EPA 300.0 1 09/08/16 19:50 09/10/16 18:14 6090212 ND 1.0 0.05 mg/L EPA 300.0 1 09/08/16 19:50 09/10/16 18:14 6090212 ND 1.0 0.05 mg/L EPA 6020B J 1 09/08/16 19:50 09/10/16 18:14 6090212 ND 1.0 0.05 mg/L EPA 6020B J 1 09/08/16 19:50 09/10/16 18:14 6090212 0.0012 0.0050 0.0016 mg/L EPA 6020B J 1 09/08/16 19:50 09/10/16 18:35 6090169 ND 0.0050 0.0016 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:35 6090169 ND <td< td=""></td<>



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

Project: CCR Event

Report No.: AZI0077
Client ID: FERB-2

Lab Number ID: AZI0077-16

Date/Time Sampled: 9/1/2016 3:28:00PM

Date/Time Received: 9/2/2016 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	46	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	J	1	09/08/16 19:50	09/10/16 18:34	6090212	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:34	6090212	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:34	6090212	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:41	6090169	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:23	6090109	MTC



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Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0077
Client ID: Dup-1

Project: CCR Event

Lab Number ID: AZI0077-17

Date/Time Sampled: 9/1/2016 12:00:00AM

Date/Time Received: 9/2/2016 12:40:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	481	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
Inorganic Anions											
Chloride	50	1.2	0.07	mg/L	EPA 300.0		5	09/08/16 19:50	09/11/16 13:40	6090212	RLC
Fluoride	0.46	0.30	0.02	mg/L	EPA 300.0		1	09/08/16 19:50	09/10/16 18:55	6090212	RLC
Sulfate	100	5.0	0.26	mg/L	EPA 300.0		5	09/08/16 19:50	09/11/16 13:40	6090212	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Barium	0.0759	0.0100	0.0004	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Boron	0.888	0.100	0.0064	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Cadmium	0.0004	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Calcium	95.9	5.00	0.311	mg/L	EPA 6020B		10	09/08/16 10:40	09/12/16 17:32	6090169	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Molybdenum	0.0266	0.0100	0.0017	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Lithium	0.0024	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:47	6090169	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:25	6090109	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Report No.: AZI0077 Client ID: Dup-2

Lab Number ID: AZI0077-18

Date/Time Sampled: 9/1/2016 12:00:00AM

Date/Time Received: 9/2/2016 12:40:00PM

September 14, 2016

Matrix: Ground Water

Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
3190	25	10	mg/L	SM 2540 C		1	09/07/16 21:25	09/07/16 21:25	6090136	JPT
520	12	0.70	mg/L	EPA 300.0		50	09/08/16 19:50	09/12/16 04:28	6090212	RLC
0.07	0.30	0.02	mg/L	EPA 300.0	J	1	09/08/16 19:50	09/10/16 19:16	6090212	RLC
1400	50	2.6	mg/L	EPA 300.0		50	09/08/16 19:50	09/12/16 04:28	6090212	RLC
ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
0.0055	0.0050	0.0016	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
0.0213	0.0100	0.0004	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
0.0005	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
12.4	1.00	0.0642	mg/L	EPA 6020B		10	09/08/16 10:40	09/14/16 11:46	6090169	CSW
0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
547	50.0	3.11	mg/L	EPA 6020B		100	09/08/16 10:40	09/12/16 16:18	6090169	CSW
ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
0.0250	0.0100	0.0005	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
0.0017	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
0.0117	0.0100	0.0010	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
0.0003	0.0010	0.0002	mg/L	EPA 6020B	J	1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/08/16 10:40	09/09/16 18:52	6090169	CSW
ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 17:28	6090109	MTC
	3190 520 0.07 1400 ND 0.0055 0.0213 0.0005 12.4 0.0001 547 ND 0.0250 0.0017 ND 0.0117 0.0003 ND	3190 25 520 12 0.07 0.30 1400 50 ND 0.0030 0.0055 0.0050 0.0213 0.0100 0.0005 0.0030 12.4 1.00 0.0001 0.0010 547 50.0 ND 0.0100 0.0250 0.0100 0.0250 0.0100 0.0017 0.0050 ND 0.0100 0.0117 0.0100 0.0017 0.0050 ND 0.0100 0.0017 0.0050 ND 0.0100 0.0017 0.0050	3190 25 10 520 12 0.70 0.07 0.30 0.02 1400 50 2.6 ND 0.0030 0.0008 0.0055 0.0050 0.0016 0.0213 0.0100 0.0004 0.0005 0.0030 0.00008 12.4 1.00 0.0642 0.0001 0.0010 0.00007 547 50.0 3.11 ND 0.0100 0.0009 0.0250 0.0100 0.0005 0.0017 0.0050 0.0001 ND 0.0100 0.0017 0.0117 0.0100 0.0010 0.0003 0.0010 0.0002 ND 0.0500 0.0021	3190 25 10 mg/L 520 12 0.70 mg/L 0.07 0.30 0.02 mg/L 1400 50 2.6 mg/L ND 0.0030 0.0008 mg/L 0.0055 0.0050 0.0016 mg/L 0.0213 0.0100 0.0004 mg/L 0.0005 0.0030 0.00008 mg/L 12.4 1.00 0.0642 mg/L 0.0001 0.0010 0.00007 mg/L 547 50.0 3.11 mg/L ND 0.0100 0.0009 mg/L 0.0250 0.0100 0.0005 mg/L 0.0250 0.0100 0.0005 mg/L 0.0017 0.0050 0.0001 mg/L ND 0.0100 0.0017 mg/L 0.0117 0.0100 0.0010 mg/L 0.0017 0.0050 0.0010 mg/L 0.0017 0.0050 0.0011 mg/L 0.0010 0.0002 mg/L 0.0003 0.0010 0.0002 mg/L	3190 25 10 mg/L SM 2540 C 520 12 0.70 mg/L EPA 300.0 0.07 0.30 0.02 mg/L EPA 300.0 1400 50 2.6 mg/L EPA 300.0 ND 0.0030 0.0008 mg/L EPA 6020B 0.0055 0.0050 0.0016 mg/L EPA 6020B 0.00213 0.0100 0.0004 mg/L EPA 6020B 0.0005 0.0030 0.00008 mg/L EPA 6020B 12.4 1.00 0.0642 mg/L EPA 6020B 0.0001 0.0010 0.00007 mg/L EPA 6020B 547 50.0 3.11 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B 0.0250 0.0100 0.0005 mg/L EPA 6020B 0.0017 0.0050 0.0001 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B 0.0017 0.0050 0.0001 mg/L EPA 6020B 0.0117 0.0100 0.0017 mg/L EPA 6020B 0.0117 0.0100 0.0010 mg/L EPA 6020B 0.0117 0.0100 0.0010 mg/L EPA 6020B 0.0013 0.0010 0.0002 mg/L EPA 6020B 0.0003 0.0010 0.0002 mg/L EPA 6020B	3190 25 10 mg/L SM 2540 C 520 12 0.70 mg/L EPA 300.0 0.07 0.30 0.02 mg/L EPA 300.0 J 1400 50 2.6 mg/L EPA 6020B 0.0055 0.0050 0.0016 mg/L EPA 6020B 0.0213 0.0100 0.0004 mg/L EPA 6020B 0.0005 0.0030 0.00008 mg/L EPA 6020B 0.0001 0.0010 0.0004 mg/L EPA 6020B 0.0001 0.0010 0.00007 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B 0.0250 0.0100 0.0005 mg/L EPA 6020B 0.0250 0.0100 0.0005 mg/L EPA 6020B 0.0017 0.0050 0.0001 mg/L EPA 6020B 0.017 0.0050 0.0017 mg/L EPA 6020B 0.017 0.0100 0.0017 mg/L EPA 6020B 0.0117 0.0100 0.0010 mg/L EPA 6020B 0.0117 0.0100 0.0010 mg/L EPA 6020B 0.0017 0.0100 0.0010 mg/L EPA 6020B 0.0117 0.0100 0.0010 mg/L EPA 6020B 0.0017 0.0100 0.0010 mg/L EPA 6020B 0.0117 0.0100 0.0010 mg/L EPA 6020B 0.0003 0.0010 0.0002 mg/L EPA 6020B 0.0003 D.0010 0.0002 mg/L EPA 6020B 0.0003 D.0010 0.0002 mg/L EPA 6020B	3190 25 10 mg/L SM 2540 C 1 520 12 0.70 mg/L EPA 300.0 50 0.07 0.30 0.02 mg/L EPA 300.0 J 1 1400 50 2.6 mg/L EPA 300.0 50 ND 0.0030 0.0008 mg/L EPA 6020B 1 0.0055 0.0050 0.0016 mg/L EPA 6020B 1 0.00213 0.0100 0.0004 mg/L EPA 6020B 1 0.0005 0.0030 0.00008 mg/L EPA 6020B J 1 12.4 1.00 0.0642 mg/L EPA 6020B J 1 12.4 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09/09/16 18:52 12.4 1.00 0.0642 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 12.4 1.00 0.0642 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 547 50.0 3.11 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 547 50.0 3.11 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0250 0.0100 0.0009 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0250 0.0100 0.0005 mg/L EPA 6020B J 09/08/16 10:40 09/09/16 18:52 0.0017 0.0050 0.0001 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0017 0.0050 0.0001 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0117 0.0100 0.0017 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0117 0.0100 0.0017 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0017 0.0050 0.0001 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0117 0.0100 0.0017 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0017 0.0050 0.0010 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0017 0.0050 0.0010 mg/L EPA 6020B J 1 09/08/16 10:40 09/09/16 18:52 0.0017 0.0050 0.0010 mg/L EPA 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Environmental Monitoring & Laboratory Analysis 110 Technology Parkway, Peachtree Corners, GA 30092 (770) 734-4200 FAX (770) 734-4201

Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZI0077

September 14, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090135 - SM 2540	С										
Blank (6090135-BLK1)						Prepai	red & An	alyzed: 09	9/07/16		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090135-BS1)						Prepai	red & Ana	alyzed: 09	9/07/16		
Total Dissolved Solids	336	25	10	mg/L	400.00	-	84	84-108			
Duplicate (6090135-DUP1)		So	urce: AZI0	058-08		Prepai	red & An	alyzed: 09	9/07/16		
Total Dissolved Solids	580	25	10	mg/L		539			7	10	
Duplicate (6090135-DUP2)		So	urce: AZI0	0077-04		Prepai	red & An	alyzed: 09	9/07/16		
Total Dissolved Solids	691	25	10	mg/L		769			11	10	QR-03
Batch 6090136 - SM 2540	С										
Blank (6090136-BLK1)						Prepai	red & An	alyzed: 09	9/07/16		
Total Dissolved Solids	ND	25	10	mg/L		•					
LCS (6090136-BS1)						Prepai	red & An	alyzed: 09	9/07/16		
Total Dissolved Solids	407	25	10	mg/L	400.00		102	84-108			
Duplicate (6090136-DUP1)		So	urce: AZI0	0077-07		Prepai	red & An	alyzed: 09	9/07/16		
Total Dissolved Solids	694	25	10	mg/L		702		-	1	10	
Duplicate (6090136-DUP2)		So	urce: AZI0	0094-01		Prepai	red & Ana	alyzed: 09	9/07/16		
Total Dissolved Solids	228	25	10	mg/L		243			6	10	



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Report No.: AZI0077

September 14, 2016

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090177 - EPA 300.0											
Blank (6090177-BLK1)						Prepar	red & Ana	alyzed: 09	/08/16		
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 (6090177-BS1)						Prepar	red & Ana	alyzed: 09	/08/16		
Chloride	10.3	0.25	0.01	mg/L	10.010	•	102	90-110			
Fluoride	10.8	0.30	0.02	mg/L	10.010		108	90-110			
Sulfate	10.4	1.0	0.05	mg/L	10.010		103	90-110			
Matrix Spike (6090177-MS1)		So	urce: AZI0	077-05		Prepar	red & Ana	alyzed: 09	/08/16		
Chloride	62.4	0.25	0.01	mg/L	10.010	58.3	41	90-110			QM-05
Fluoride	11.5	0.30	0.02	mg/L	10.010	0.67	108	90-110			
Sulfate	185	1.0	0.05	mg/L	10.010	193	NR	90-110			QM-05
Matrix Spike (6090177-MS2)		So	urce: AZI0	077-10		Prepar	red & Ana	alyzed: 09	/08/16		
Chloride	41.2	0.25	0.01	mg/L	10.010	34.4	68	90-110			QM-05
Fluoride	11.5	0.30	0.02	mg/L	10.010	0.42	111	90-110			QM-05
Sulfate	175	1.0	0.05	mg/L	10.010	182	NR	90-110			QM-05
Matrix Spike Dup (6090177-M	SD1)	So	urce: AZI0	077-05		Prepar	red & Ana	alyzed: 09	/08/16		
Chloride	62.6	0.25	0.01	mg/L	10.010	58.3	43	90-110	0.4	15	QM-05
Fluoride	11.7	0.30	0.02	mg/L	10.010	0.67	111	90-110	2	15	QM-05
Sulfate	185	1.0	0.05	mg/L	10.010	193	NR	90-110	0.09	15	QM-05
Batch 6090212 - EPA 300.0											
Blank (6090212-BLK1)						Prepar	red: 09/0	8/16 Ana	lyzed: 09	9/10/16	
Chloride	ND	0.25	0.01	mg/L		•			•		
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							



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Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090212 - EPA 300.0)										
LCS (6090212-BS1)						Prepai	red: 09/0	8/16 Ana	ılyzed: 09	9/10/16	
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.010		105	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		102	90-110			
Matrix Spike (6090212-MS1)		So	urce: AZI0	168-02		Prepai	red: 09/0	8/16 Ana	ılyzed: 09	9/10/16	
Chloride	25.2	0.25	0.01	mg/L	10.010	15.8	94	90-110			
Fluoride	11.9	0.30	0.02	mg/L	10.010	0.17	117	90-110			QM-05
Sulfate	147	1.0	0.05	mg/L	10.010	153	NR	90-110			QM-05
Matrix Spike (6090212-MS2)		So	urce: AZI0	192-04		Prepai	red: 09/0	8/16 Ana	ılyzed: 09	9/11/16	
Chloride	26.4	0.25	0.01	mg/L	10.010	17.3	91	90-110			
Fluoride	12.0	0.30	0.02	mg/L	10.010	0.32	117	90-110			QM-05
Sulfate	177	1.0	0.05	mg/L	10.010	185	NR	90-110			QM-05
Matrix Spike Dup (6090212-M	ISD1)	So	urce: AZI0	168-02		Prepai	red: 09/0	8/16 Ana	ılyzed: 09	9/10/16	
Chloride	25.1	0.25	0.01	mg/L	10.010	15.8	94	90-110	0.08	15	
Fluoride	11.8	0.30	0.02	mg/L	10.010	0.17	117	90-110	0.5	15	QM-05
Sulfate	147	1.0	0.05	mg/L	10.010	153	NR	90-110	0.09	15	QM-05



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Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090109 - EPA 7470	Α										
Blank (6090109-BLK1)						Prepar	red & Ana	alyzed: 09	0/06/16		
Mercury	ND	0.00050	0.000041	mg/L				-			
LCS (6090109-BS1)						Prepar	red & Ana	alyzed: 09	/06/16		
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3		94	80-120			
Matrix Spike (6090109-MS1)		So	urce: AZI00	077-04		Prepar	red & Ana	alyzed: 09	0/06/16		
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6090109-N	ISD1)	So	urce: AZI00	077-04		Prepar	red & Ana	alyzed: 09	0/06/16		
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125	0.1	20	
Post Spike (6090109-PS1)		So	urce: AZI00	077-04		Prepar	red & Ana	alyzed: 09	0/06/16		
Mercury	1.68			ug/L	1.6667	0.00330	100	80-120			
Batch 6090121 - EPA 3005	A										
Blank (6090121-BLK1)						Prepar	red: 09/0	7/16 Ana	lyzed: 09	/08/16	
Antimony	ND	0.0030	0.0008	mg/L		•			,		
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	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							



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

Report No.: AZI0077

September 14, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090121 - EPA 3005	A										
LCS (6090121-BS1)						Prepai	red: 09/0	7/16 Ana	alyzed: 09	9/08/16	
Antimony	0.109	0.0030	0.0008	mg/L	0.10000	-	109	80-120			
Arsenic	0.0983	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.0965	0.0100	0.0004	mg/L	0.10000		96	80-120			
Beryllium	0.0979	0.0030	0.00008	mg/L	0.10000		98	80-120			
Boron	0.990	0.100	0.0064	mg/L	1.0000		99	80-120			
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	0.942	0.500	0.0311	mg/L	1.0000		94	80-120			
Chromium	0.100	0.0100	0.0009	mg/L	0.10000		100	80-120			
Cobalt	0.0969	0.0100	0.0005	mg/L	0.10000		97	80-120			
Copper	0.0966	0.0050	0.0005	mg/L	0.10000		97	80-120			
Lead	0.0985	0.0050	0.0001	mg/L	0.10000		98	80-120			
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000		102	80-120			
Nickel	0.0957	0.0050	0.0006	mg/L	0.10000		96	80-120			
Selenium	0.0999	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.0964	0.0050	0.0005	mg/L	0.10000		96	80-120			
Thallium	0.0983	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.104	0.0100	0.0071	mg/L	0.10000		104	80-120			
Zinc	0.103	0.0100	0.0021	mg/L	0.10000		103	80-120			
Lithium	0.0971	0.0500	0.0021	mg/L	0.10000		97	80-120			
Matrix Spike (6090121-MS1)		So	urce: AZI0	059-01		Prepai	red: 09/0	7/16 Ana	alyzed: 09	9/08/16	
Antimony	0.110	0.0030	0.0008	mg/L	0.10000	ND	110	75-125	•		
Arsenic	0.0984	0.0050	0.0016	mg/L	0.10000	ND	98	75-125			
Barium	0.112	0.0100	0.0004	mg/L	0.10000	0.0142	98	75-125			
Beryllium	0.0935	0.0030	0.00008	mg/L	0.10000	ND	93	75-125			
Boron	0.952	0.100	0.0064	mg/L	1.0000	ND	95	75-125			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	4.12	0.500	0.0311	mg/L	1.0000	3.30	82	75-125			
Chromium	0.117	0.0100	0.0009	mg/L	0.10000	0.0147	102	75-125			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125			
Copper	0.0970	0.0050	0.0005	mg/L	0.10000	ND	97	75-125			
Lead	0.0973	0.0050	0.0001	mg/L	0.10000	0.0001	97	75-125			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000	ND	103	75-125			
Nickel	0.103	0.0050	0.0006	mg/L	0.10000	0.0035	100	75-125			
Selenium	0.0978	0.0100	0.0010	mg/L	0.10000	ND	98	75-125			
Silver	0.0973	0.0050	0.0005	mg/L	0.10000	ND	97	75-125			
Thallium	0.0984	0.0010	0.0002	mg/L	0.10000	ND	98	75-125			
Vanadium	0.111	0.0100	0.0071	mg/L	0.10000	ND	111	75-125			
vanaulum	0.111										
Zinc	0.109	0.0100	0.0021	mg/L	0.10000	0.0062	103	75-125			



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September 14, 2016

Arsenic 0.0992 0.0050 0.0016 mg/L 0.10000 ND 99 75-125 0.8 20 Berlum 0.1113 0.0100 0.00004 mg/L 0.10000 0.0142 99 75-125 1 20 Berlum 0.1113 0.0100 0.00004 mg/L 0.10000 0.0142 99 75-125 1 20 Berlum 0.1014 0.0094 0.0000 0.00004 mg/L 0.10000 ND 95 75-125 1 20 Berlum 0.1014 0.0010 0.00007 mg/L 0.10000 ND 90 75-125 5 20 Berlum 0.1014 0.0010 0.00007 mg/L 0.10000 ND 90 75-125 5 20 Berlum 0.1010 0.1010 0.00007 mg/L 0.10000 0.000 3.30 82 75-125 0.2 20 Berlum 0.1110 0.0110 0.00005 mg/L 0.10000 0.0147 95 75-125 0.2 20 Berlum 0.1110 0.0110 0.00005 mg/L 0.10000 0.0147 95 75-125 0.2 20 Berlum 0.0001 0.0005 mg/L 0.10000 0.0147 95 75-125 0.2 20 Berlum 0.0001 0.0005 mg/L 0.10000 0.0001 99 75-125 0.2 20 Berlum 0.0001 0.0001 mg/L 0.10000 0.0001 99 75-125 0.2 20 Berlum 0.0001 0.0001 mg/L 0.10000 0.0001 99 75-125 0.2 20 Berlum 0.0001 0.0001 mg/L 0.10000 0.0001 99 75-125 0.2 20 Berlum 0.0001 0.0001 mg/L 0.10000 0.0001 99 75-125 0.2 20 Berlum 0.0001 0.0001 mg/L 0.10000 0.0001 99 75-125 0.2 20 Berlum 0.0001 0.0001 mg/L 0.10000 0.0001 99 75-125 0.2 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 0.0001 99 75-125 0.2 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 0.0001 99 75-125 0.2 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 0.0001 99 75-125 0.4 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 0.0003 100 75-125 0.4 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 0.0003 100 75-125 0.4 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 ND 101 75-125 0.4 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 ND 101 75-125 0.3 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Berlum 0.1010 0.0001 0.0001 mg/L 0.10000 0.0002 100 0.0001	Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony 0.109 0.0030 0.0008 mg/L 0.10000 ND 109 75-125 0.06 20 Ansenic 0.0992 0.0050 0.0016 mg/L 0.10000 ND 99 75-125 0.8 20 Barium 0.113 0.0100 0.0004 mg/L 0.10000 ND 99 75-125 1 20 Barium 0.0946 0.0030 0.00008 mg/L 0.10000 ND 95 75-125 1 20 Barium 0.0946 0.0030 0.0004 mg/L 0.10000 ND 95 75-125 1 20 Barium 0.0946 0.0030 0.00044 mg/L 0.10000 ND 95 75-125 1 20 Barium 0.104 0.0010 0.0007 mg/L 0.10000 ND 95 75-125 1 20 Barium 0.104 0.0010 0.0007 mg/L 0.10000 ND 95 75-125 1 20 Barium 0.104 0.0010 0.0007 mg/L 0.10000 ND 90 75-125 0.2 20 Barium 0.110 0.0100 0.0009 mg/L 0.10000 0.0147 95 75-125 0.2 20 Barium 0.110 0.0100 0.0009 mg/L 0.10000 ND 97 75-125 1 20 Barium 0.110 0.0100 0.0009 mg/L 0.10000 ND 97 75-125 1 20 Barium 0.110 0.0000 0.0005 mg/L 0.10000 ND 97 75-125 1 20 Barium 0.1000 0.0001 mg/L 0.10000 ND 96 75-125 0.2 20 Barium 0.1000 0.0001 mg/L 0.10000 ND 96 75-125 0.2 20 Barium 0.1000 0.0001 mg/L 0.10000 ND 96 75-125 0.2 20 Barium 0.1000 0.0001 mg/L 0.10000 ND 96 75-125 0.2 20 Barium 0.1000 0.0001 mg/L 0.10000 ND 96 75-125 0.4 20 Barium 0.1000 0.0001 mg/L 0.10000 ND 100 75-125 0.4 20 Barium 0.1000 0.0005 mg/L 0.10000 ND 100 75-125 0.4 20 Barium 0.1000 0.0005 mg/L 0.10000 ND ND 100 75-125 0.4 20 Barium 0.1000 0.0005 mg/L 0.10000 ND ND 100 75-125 0.4 20 Barium 0.1000 0.0005 mg/L 0.10000 ND ND 100 75-125 0.4 20 Barium 0.1000 0.0005 mg/L 0.10000 ND ND 100 75-125 0.4 20 Barium 0.1000 0.0005 mg/L 0.10000 ND ND 100 75-125 0.4 20 Barium 0.1000 0.0005 mg/L 0.10000 ND ND 100 75-125 0.4 20 Barium 0.1000 0.0005 mg/L 0.10000 ND ND 100 75-125 0.4 20 Barium 0.1000 0.0005 mg/L 0.10000 ND 100 75-125 0.3 20 Barium 0.1000 0.0005 mg/L 0.10000 ND 100 75-125 0.3 20 Barium 0.1000 0.0005 mg/L 0.10000 ND 100 75-125 0.3 20 Barium 0.1000 0.0005 mg/L 0.10000 ND 100 75-125 0.3 20 Barium 0.1000 0.0005 mg/L 0.10000 ND 100 0.0005 ND 100 75-125 0.3 20 Barium 0.1000 0.0005 mg/L 0.10000 ND 100 0.0005 ND 100 0.0005 ND 0.1000 ND 100 0.0005 ND 100 0.0	Batch 6090121 - EF	PA 3005A										
Arsenic 0.0992 0.0050 0.0016 mg/L 0.10000 ND 99 75-125 0.8 20 Bearlum 0.1113 0.0100 0.00004 mg/L 0.10000 0.0142 99 75-125 1 20 Bearlum 0.946 0.0030 0.00008 mg/L 1.0000 ND 95 75-125 1 20 Bernon 0.994 0.100 0.00007 mg/L 0.10000 ND 95 75-125 5 20 Cadmium 0.1104 0.0010 0.00007 mg/L 0.10000 ND 90 75-125 5 20 Cadmium 0.1104 0.0010 0.00007 mg/L 0.10000 ND 90 75-125 0.2 20 Chronium 0.1110 0.0100 0.0009 mg/L 0.10000 0.0147 95 75-125 0.2 20 Chronium 0.1110 0.0010 0.00005 mg/L 0.10000 ND 90 75-125 0.2 20 Chronium 0.1110 0.0010 0.0005 mg/L 0.10000 ND 97 75-125 0.2 20 Chronium 0.1110 0.0010 0.0005 mg/L 0.10000 ND 97 75-125 0.2 20 Chronium 0.1110 0.0000 0.0005 mg/L 0.10000 ND 97 75-125 0.2 20 Chronium 0.1010 0.0005 mg/L 0.10000 ND 97 75-125 0.2 20 Chronium 0.1010 0.0005 mg/L 0.10000 ND 97 75-125 0.2 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 97 75-125 0.2 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 98 75-125 0.2 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 103 75-125 0.2 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 103 75-125 0.2 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 103 75-125 0.4 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 103 75-125 0.4 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 103 75-125 0.4 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 103 75-125 0.4 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 100 75-125 0.4 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0000 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0000 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0000 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0001 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0010 0.0010 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0010 0.0010 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010 0.0010 0.0010 mg/L 0.10000 ND 100 75-125 0.3 20 Chronium 0.1010	Matrix Spike Dup (60	90121-MSD1)	So	urce: AZI0	059-01		Prepa	red: 09/0	7/16 Ana	ılyzed: 09	9/08/16	
Barium 0.113 0.0100 0.0004 mg/L 0.10000 0.0142 99 75-125 1 20 Beryllium 0.0946 0.0030 0.00008 mg/L 0.10000 0.0142 99 75-125 1 20 Beryllium 0.0946 0.0030 0.00008 mg/L 0.10000 0.00 ND 95 75-125 1 20 Beryllium 0.0940 0.1000 0.00644 mg/L 0.10000 0.0000 ND 95 75-125 1 20 Beryllium 0.0940 0.1000 0.00644 mg/L 0.10000 0.000 ND 95 75-125 1 20 Beryllium 0.0940 0.1000 0.00007 mg/L 0.10000 0.00 ND 97 75-125 3 20 Cadmium 0.101 0.00007 mg/L 0.10000 0.000 ND 104 75-125 3 20 Cadmium 0.110 0.0100 0.00009 mg/L 0.10000 0.0147 95 75-125 6 20 Cadmium 0.110 0.0100 0.00005 mg/L 0.10000 0.0147 95 75-125 6 20 Cadmium 0.0050 0.0001 mg/L 0.10000 0.000 ND 97 75-125 6 20 Cadmium 0.0050 0.0001 mg/L 0.10000 ND 97 75-125 4 20 Cadmium 0.0050 0.0001 mg/L 0.10000 ND 97 75-125 4 20 Cadmium 0.1010 0.0050 mg/L 0.10000 ND 99 75-125 0.2 20 Cadmium 0.1010 0.0005 mg/L 0.10000 ND 99 75-125 0.2 20 Cadmium 0.1010 0.0005 mg/L 0.10000 ND 99 75-125 0.4 20 Cadmium 0.1010 0.0005 mg/L 0.10000 ND 103 75-125 0.4 20 Cadmium 0.1010 0.0005 mg/L 0.10000 ND 103 75-125 0.4 20 Cadmium 0.1010 0.0005 mg/L 0.10000 ND 103 75-125 0.4 20 Cadmium 0.1011 0.0100 0.0005 mg/L 0.10000 ND 101 75-125 1 20 Cadmium 0.1011 0.0100 0.0005 mg/L 0.10000 ND 101 75-125 1 20 Cadmium 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 1 20 Cadmium 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 1 20 Cadmium 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 1 20 Cadmium 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 1 20 Cadmium 0.0050 0.0006 0	Antimony	0.109	0.0030	0.0008	mg/L	0.10000	ND	109	75-125	0.06	20	
Despillum	Arsenic	0.0992	0.0050	0.0016	mg/L	0.10000	ND	99	75-125	0.8	20	
Boron 0.904	Barium	0.113	0.0100	0.0004	mg/L	0.10000	0.0142	99	75-125	1	20	
Cadmium 0.104 0.0010 0.00007 mg/L 0.10000 ND 104 75-125 3 20 Calcium 4.13 0.500 0.0311 mg/L 1.0000 3.30 82 75-125 0.2 20 Chromium 0.110 0.0100 0.0009 mg/L 0.10000 0.0147 mg/L 1.0000 3.03 82 75-125 6 20 Cobalt 0.0972 0.0100 0.0005 mg/L 0.10000 ND 97 75-125 4 20 Copper 0.0981 0.0050 0.0005 mg/L 0.10000 ND 96 75-125 1 20 Copper 0.0989 0.0050 0.0001 mg/L 0.10000 ND 96 75-125 1 20 Copper 0.0101 0.0050 0.0001 mg/L 0.10000 ND 103 75-125 0.4 20 Copper 0.0101 0.0050 0.0001 mg/L 0.10000 ND 103 75-125 0.4 20 Copper 0.0101 0.0050 0.0006 mg/L 0.10000 ND 103 75-125 0.4 20 Copper 0.0101 0.0050 0.0006 mg/L 0.10000 ND 103 75-125 0.4 20 Copper 0.0101 0.0100 0.0010 mg/L 0.10000 ND 101 75-125 0.4 20 Copper 0.0984 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 0.2 20 Copper 0.0998 0.0010 0.0002 mg/L 0.10000 ND 101 75-125 0.3 20 Copper 0.0998 0.0010 0.0002 mg/L 0.10000 ND 101 75-125 0.3 20 Copper 0.0998 0.0010 0.0002 mg/L 0.10000 ND 101 75-125 0.3 20 Copper 0.0998 0.0010 0.0002 mg/L 0.10000 ND 100 75-125 0.3 20 Copper 0.0998 0.0010 0.0021 mg/L 0.10000 ND 108 75-125 1 20 Copper 0.0985 0.0500 0.0021 mg/L 0.10000 ND 108 75-125 1 20 Copper 0.0985 0.0500 0.0021 mg/L 0.10000 0.0062 102 75-125 1 20 Copper 0.0985 0.0500 0.0021 mg/L 0.10000 0.0022 102 75-125 1 20 Copper 0.0985 0.0500 0.0021 mg/L 0.10000 0.0022 102 75-125 1 20 Copper 0.0985 0.0500 0.0021 mg/L 0.10000 0.0022 102 75-125 1 20 Copper 0.0985 0.0500 0.0021 mg/L 0.10000 0.0022 102 75-125 1 20 Copper 0.0985 0.0500 0.0021 mg/L 0.10000 0.0022 102 75-125 1 20 Copper 0.0000 0.0021 0.00	Beryllium	0.0946	0.0030	0.00008	mg/L	0.10000	ND	95	75-125	1	20	
Calcium 4.13 0.500 0.0311 mg/L 1.0000 3.30 82 75-125 0.2 20 Chromium 0.1110 0.0100 0.0009 mg/L 0.10000 0.0147 95 75-125 6 20 Cobalt 0.0961 0.0050 0.0005 mg/L 0.10000 ND 96 75-125 1 20 Copper 0.0961 0.0050 0.0001 mg/L 0.10000 ND 96 75-125 1 20 Molybdenum 0.103 0.0000 0.0017 mg/L 0.10000 ND 101 75-125 0.4 20 Nickel 0.103 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 0.4 20 Selenium 0.101 0.0101 0.0001 mg/L 0.10000 ND 101 75-125 3 20 Thallium 0.0996 0.0010 0.0002 mg/L 0.10000 ND <td>Boron</td> <td>0.904</td> <td>0.100</td> <td>0.0064</td> <td>mg/L</td> <td>1.0000</td> <td>ND</td> <td>90</td> <td>75-125</td> <td>5</td> <td>20</td> <td></td>	Boron	0.904	0.100	0.0064	mg/L	1.0000	ND	90	75-125	5	20	
Chromium	Cadmium	0.104	0.0010	0.00007	mg/L	0.10000	ND	104	75-125	3	20	
Chromium 0.110 0.100 0.0009 mg/L 0.10000 0.0147 95 75-125 6 20 Cobalt 0.0972 0.0100 0.0005 mg/L 0.10000 ND 97 75-125 4 20 Cobalt 0.0050 0.0005 mg/L 0.10000 ND 97 75-125 1 20 Cobalt 0.0050 0.0005 mg/L 0.10000 ND 97 75-125 1 20 Cobalt 0.0050 0.0005 mg/L 0.10000 ND 96 75-125 1 20 Cobalt 0.0050 0.0006 mg/L 0.10000 ND 103 75-125 0.4 20 NO Cobalt 0.103 0.0060 0.0001 mg/L 0.10000 ND 103 75-125 0.4 20 NO Cobalt 0.103 0.0050 0.0006 mg/L 0.10000 ND 103 75-125 0.4 20 NO Cobalt 0.103 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 0.4 20 NO Cobalt 0.103 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 0.4 20 NO Cobalt 0.103 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 3 20 NO Cobalt 0.101 0.0010 0.0010 mg/L 0.10000 ND 101 75-125 3 20 NO Cobalt 0.1010 0.0001 mg/L 0.10000 ND 101 75-125 3 20 NO Cobalt 0.1010 0.0096 0.0010 0.0002 mg/L 0.10000 ND 108 75-125 1 20 NO Cobalt 0.1010 0.0096 0.0010 0.0001 mg/L 0.10000 ND 108 75-125 3 20 NO Cobalt 0.1010 0.0096 0.0010 0.0021 mg/L 0.10000 ND 108 75-125 3 20 NO Cobalt 0.1010 0.0096 0.0010 0.0021 mg/L 0.10000 ND 108 75-125 3 20 NO Cobalt 0.1010 0.0096 0.0010 0.0021 mg/L 0.10000 ND 108 75-125 3 20 NO Cobalt 0.1010 0.0096 0.0010 0.0021 mg/L 0.10000 ND 108 75-125 3 20 NO Cobalt 0.1010 0.0096 0.0010 0.0021 mg/L 0.10000 ND 108 75-125 3 20 NO Cobalt 0.1010 0.0096 0.0010 0.0021 mg/L 0.10000 ND 108 75-125 1 20 NO Cobalt 0.1010 0.0096 0.0010 0.0010 0.0010 0.0010 ND 108 75-125 1 20 NO Cobalt 0.1010 0.0010	Calcium	4.13	0.500	0.0311	mg/L	1.0000	3.30	82	75-125	0.2	20	
Cobalt 0.0972 0.0100 0.0005 mg/L 0.10000 ND 97 75-125 4 20 Copper 0.0961 0.0050 0.0005 mg/L 0.10000 ND 97 75-125 1 20 Lead 0.0989 0.0050 0.0001 mg/L 0.10000 0.0001 99 75-125 2 20 Molybdenum 0.103 0.0100 0.0001 mg/L 0.10000 ND 103 75-125 0.4 20 Selenium 0.101 0.0100 0.0001 0.0000 mg/L 0.10000 ND 101 75-125 3 20 Silver 0.0994 0.0050 0.0002 mg/L 0.10000 ND 101 75-125 3 20 Thallium 0.0996 0.0010 0.0002 mg/L 0.10000 ND 100 75-125 3 20 Zinc 0.108 0.0100 0.0021 mg/L 0.10000	Chromium	0.110	0.0100	0.0009	_	0.10000	0.0147	95	75-125	6	20	
Copper 0.0961 0.0950 0.0005 mg/L 0.10000 ND 96 75-125 1 20 Lead 0.0989 0.0050 0.00001 mg/L 0.10000 0.0001 99 75-125 1 20 Molybdenum 0.103 0.0100 0.0010 mg/L 0.10000 ND 103 75-125 2 20 Nickel 0.103 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 0.4 20 Selenium 0.101 0.0101 0.0002 mg/L 0.10000 ND 101 75-125 3 20 Silver 0.0994 0.0050 0.0002 mg/L 0.10000 ND 109 75-125 2 20 Thallium 0.0996 0.0010 0.0021 mg/L 0.10000 ND 108 75-125 3 20 Valuation 0.0985 0.0100 0.0021 mg/L 0.10000 0.002<	Cobalt	0.0972	0.0100	0.0005		0.10000	ND	97	75-125	4	20	
Lead 0.0989 0.0050 0.0001 mg/L 0.10000 0.0001 99 75-125 2 2 20 Molybdenum 0.103 0.0100 0.0017 mg/L 0.10000 ND 103 75-125 0.4 20 Nokele 0.103 0.0005 0.0006 mg/L 0.10000 ND 103 75-125 0.4 20 Nokele 0.103 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 0.4 20 Nokele 0.103 0.0010 0.0010 mg/L 0.10000 ND 101 75-125 0.4 20 Nokelenium 0.101 0.0100 0.0010 mg/L 0.10000 ND 101 75-125 0.2 20 Nokelenium 0.101 0.0964 0.0050 0.0005 mg/L 0.10000 ND 101 75-125 2 2 20 Nokelenium 0.108 0.0964 0.0010 0.0002 mg/L 0.10000 ND 100 75-125 1 20 Nokelenium 0.108 0.0100 0.0002 mg/L 0.10000 ND 100 75-125 1 20 Nokelenium 0.108 0.0100 0.0001 mg/L 0.10000 ND 108 75-125 1 20 Nokelenium 0.108 0.0100 0.0001 mg/L 0.10000 ND 108 75-125 1 20 Nokelenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0062 102 75-125 1 20 Nokelenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0062 102 75-125 1 20 Nokelenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0062 102 75-125 1 20 Nokelenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0622 102 75-125 1 20 Nokelenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0622 102 75-125 1 20 Nokelenium 0.0085 0.0500 0.0021 mg/L 100.00 0.627 95 80-120 Nokelenium 0.0085 0.0500 0.0021 mg/L 100.00 0.627 95 80-120 Nokelenium 0.0086 0.0500 0.0021 mg/L 100.00 0.627 95 80-120 Nokelenium 0.0086 0.	Copper	0.0961	0.0050	0.0005		0.10000	ND	96	75-125	1	20	
Molybdenum	Lead	0.0989	0.0050	0.0001	_	0.10000	0.0001	99	75-125	2		
Nickel 0.103 0.0050 0.0006 mg/L 0.10000 0.0035 100 75-125 0.4 20 Selenium 0.101 0.0100 0.0010 mg/L 0.10000 ND 101 75-125 0.4 20 Selenium 0.101 0.0100 0.0005 mg/L 0.10000 ND 101 75-125 3 20 Selenium 0.0994 0.0050 0.0005 mg/L 0.10000 ND 101 75-125 1 2 2 20 Thallium 0.0996 0.0010 0.0002 mg/L 0.10000 ND 100 75-125 1 2 2 20 Thallium 0.108 0.0100 0.0002 mg/L 0.10000 ND 108 75-125 1 20 Selenium 0.108 0.0100 0.0001 mg/L 0.10000 ND 108 75-125 1 20 Selenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0062 102 75-125 1 20 Selenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0062 102 75-125 0.3 20 Selenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0062 102 75-125 0.3 20 Selenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0622 102 75-125 0.3 20 Selenium 0.0985 0.0500 0.0021 mg/L 0.10000 0.627 95 80-120 Selenium 0.0985 0.0500 0.0021 mg/L 100.00 0.627 95 80-120 Selenium 0.0985 0.0500 0.0021 mg/L 100.00 0.627 95 80-120 Selenium 0.0985 0.0500 0.0021 mg/L 100.00 0.0291 102 80-120 Selenium 0.0986 0.0996 0.09	Molybdenum	0.103	0.0100	0.0017	-	0.10000			75-125	0.4		
Selenium	Nickel	0.103	0.0050	0.0006	_	0.10000		100	75-125	0.4	20	
Silver	Selenium	0.101	0.0100	0.0010	-		ND		75-125	3		
Thallium 0.0996 0.0010 0.0002 mg/L 0.10000 ND 100 75-125 1 20 Vanadium 0.108 0.0100 0.0021 mg/L 0.10000 ND 108 75-125 3 20 Zinc 0.108 0.0100 0.0021 mg/L 0.10000 0.0062 102 75-125 1 20 Lithium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0062 102 75-125 1 20 Lithium 0.0985 0.0500 0.0021 mg/L 0.10000 0.0030 96 75-125 0.3 20 Post Spike (6090121-PS1) Source: AZI0059-01 Prepared: 0.907/16 Analyzed: 0.908/16 Antimony 95.5 ug/L 100.00 0.627 95 80-120 Arsenic 100 ug/L 100.00 0.627 95 80-120 Barium 113 ug/L 100.00 14.2 98 80-120 Beryllium 102 ug/L 100.00 14.2 98 80-120 Beryllium 104 ug/L 100.00 0.0253 103 80-120 Calcium 4230 ug/L 100.00 14.7 101 80-120 Calcium 4230 ug/L 100.00 14.7 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Cobalt 101 ug/L 100.00 0.237 100 80-120 Copper 100 ug/L 100.00 0.0236 102 80-120 Copper 100 ug/L 100.00 0.0366 102 80-120 Copper 100 ug/L 100.00 0.0366 102 80-120 Copper 100 0.0560 100 0.0560 100 80-1		0.0994	0.0050									
Vanadium 0.108 0.0100 0.0071 mg/L 0.1000 ND 108 75-125 3 20 Zinc 0.108 0.0100 0.0021 mg/L 0.10000 0.0062 102 75-125 1 20 Post Spike (6090121-PS1) Source: AZI0059-01 Prepared: 09/07/16 Analyzed: 09/08/16 Antimony 95.5 ug/L 100.00 0.627 95 80-120 Arsenic 100 ug/L 100.00 0.627 95 80-120 Beryllium 113 ug/L 100.00 0.162 100 80-120 Boron 956 ug/L 1000.00 0.0291 102 80-120 Cadmium 104 ug/L 1000.00 0.0253 103 80-120 Calcium 4230 ug/L 1000.00 14.7 101 80-120 Chromium 115 ug/L 100.00 0.235 101 80-120 Cobalt<		0.0996			_				75-125			
Description Calcium		0.108	0.0100		-							
Post Spike (6090121-PS1) Source: AZI0059-01 Prepared: 09/07/16 Analyzed: 09/08/16		0.108	0.0100						75-125			
Antimony 95.5 ug/L 100.00 0.627 95 80-120 Arsenic 100 ug/L 100.00 0.162 100 80-120 Barium 113 ug/L 100.00 14.2 98 80-120 Beryllium 102 ug/L 100.00 0.0291 102 80-120 Boron 956 ug/L 100.00 5.64 95 80-120 Cadmium 104 ug/L 100.00 0.0253 103 80-120 Calcium 4230 ug/L 100.00 3300 93 80-120 Chromium 115 ug/L 100.00 14.7 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.237 100 80-120 Molybdenum 103 ug/L 100.00 0.336 102 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Mickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Selenium 103 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120	Lithium	0.0985	0.0500		-							
Antimony 95.5	Post Spike (6090121-	-PS1)	So	urce: AZI0	059-01		Prepa	red: 09/0	7/16 Ana	ılyzed: 09	9/08/16	
Arsenic 100 ug/L 100.00 0.162 100 80-120 Barium 113 ug/L 100.00 14.2 98 80-120 Beryllium 102 ug/L 100.00 0.0291 102 80-120 Boron 956 ug/L 100.00 5.64 95 80-120 Cadrium 104 ug/L 100.00 0.0253 103 80-120 Calcium 4230 ug/L 100.00 3300 93 80-120 Chromium 115 ug/L 100.00 14.7 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.237 100 80-120 Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.836 102 80-120 Nickel 103 ug/L 100.00 0.602 103 80-120 Selenium 103 <td< td=""><td>Antimony</td><td>95.5</td><td></td><td></td><td>ug/L</td><td>100.00</td><td></td><td></td><td></td><td>•</td><td></td><td></td></td<>	Antimony	95.5			ug/L	100.00				•		
Barium 113 ug/L 100.00 14.2 98 80-120 Beryllium 102 ug/L 100.00 0.0291 102 80-120 Boron 956 ug/L 100.00 5.64 95 80-120 Cadmium 104 ug/L 100.00 0.0253 103 80-120 Calcium 4230 ug/L 100.00 3300 93 80-120 Chromium 115 ug/L 100.00 14.7 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.237 100 80-120 Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 0.602 103 80-120 Selenium 103 ug/L 100.00 0.0071 99 80-120 Thallium 100 <	Arsenic	100				100.00	0.162	100	80-120			
Beryllium 102 ug/L 100.00 0.0291 102 80-120 Boron 956 ug/L 100.00 5.64 95 80-120 Cadmium 104 ug/L 100.00 0.0253 103 80-120 Calcium 4230 ug/L 100.00 3300 93 80-120 Chromium 115 ug/L 100.00 14.7 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.237 100 80-120 Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L	Barium	113				100.00	14.2	98	80-120			
Boron 956 ug/L 1000.0 5.64 95 80-120 Cadmium 104 ug/L 100.00 0.0253 103 80-120 Calcium 4230 ug/L 1000.0 3300 93 80-120 Chromium 115 ug/L 100.00 14.7 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.237 100 80-120 Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110	Beryllium	102			_	100.00	0.0291	102	80-120			
Cadmium 104 ug/L 100.00 0.0253 103 80-120 Calcium 4230 ug/L 100.00 3300 93 80-120 Chromium 115 ug/L 100.00 14.7 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.237 100 80-120 Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 6.19 104 80-120	Boron	956				1000.0	5.64	95	80-120			
Calcium 4230 ug/L 1000.0 3300 93 80-120 Chromium 115 ug/L 100.00 14.7 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.237 100 80-120 Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 6.19 104 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Cadmium	104				100.00	0.0253	103	80-120			
Chromium 115 ug/L 100.00 14.7 101 80-120 Cobalt 101 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.237 100 80-120 Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L 100.00 0.0246 100 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 6.19 104 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Calcium	4230				1000.0	3300	93	80-120			
Cobalt 101 ug/L 100.00 0.235 101 80-120 Copper 100 ug/L 100.00 0.237 100 80-120 Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Chromium	115				100.00	14.7	101	80-120			
Copper 100 ug/L 100.00 0.237 100 80-120 Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Cobalt	101				100.00	0.235	101	80-120			
Lead 101 ug/L 100.00 0.130 101 80-120 Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Copper	100				100.00	0.237	100	80-120			
Molybdenum 103 ug/L 100.00 0.0836 102 80-120 Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Lead	101			-	100.00	0.130	101	80-120			
Nickel 103 ug/L 100.00 3.46 100 80-120 Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Molybdenum											
Selenium 103 ug/L 100.00 0.602 103 80-120 Silver 98.7 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Nickel	103							80-120			
Silver 98.7 ug/L 100.00 0.0071 99 80-120 Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Selenium	103										
Thallium 100 ug/L 100.00 0.0246 100 80-120 Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Silver	98.7			_				80-120			
Vanadium 109 ug/L 100.00 4.25 105 80-120 Zinc 110 ug/L 100.00 6.19 104 80-120	Thallium											
Zinc 110 ug/L 100.00 6.19 104 80-120	Vanadium											
•	Zinc				•							
9-	Lithium				ug/L	100.00	2.97	100	80-120			



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

Report No.: AZI0077

September 14, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090124 - EPA 7470	Α										
Blank (6090124-BLK1)						Prepa	red & Ana	alyzed: 09	9/07/16		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6090124-BS1)						Prepa	red & Ana	alyzed: 09	9/07/16		
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3		96	80-120	., ,		
Matrix Spika (6000124 MS1)		80	uraa. A 710	NEO 10		Dropo	rad O Ana	alvandı OC	0/07/46		
Matrix Spike (6090124-MS1) Mercury	0.00225	0.00050	urce: AZI00 0.000041	mg/L	2.5000E-3		90	alyzed: 09 75-125	9/07/16		
Mercury	0.00220	0.00000	0.000041	mg/L	2.3000L-3	ND	90	75-125			
Matrix Spike Dup (6090124-M			urce: AZI00					alyzed: 09	9/07/16		
Mercury	0.00222	0.00050	0.000041	mg/L	2.5000E-3	ND	89	75-125	1	20	
Post Spike (6090124-PS1)		So	urce: AZI00	058-10		Prepa	red & Ana	alyzed: 09	9/07/16		
Mercury	1.63			ug/L	1.6667	0.0124	97	80-120			
D / L 0000400 FD4 0005											
Batch 6090169 - EPA 3005	A										
Blank (6090169-BLK1)						Prepa	red: 09/0	8/16 Ana	ılyzed: 09	9/09/16	
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							



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

Report No.: AZI0077

September 14, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090169 - EPA 3005	Α										
LCS (6090169-BS1)						Prepai	red: 09/0	8/16 Ana	ılyzed: 09	9/09/16	
Antimony	0.106	0.0030	0.0008	mg/L	0.10000		106	80-120			
Arsenic	0.0993	0.0050	0.0016	mg/L	0.10000		99	80-120			
Barium	0.0945	0.0100	0.0004	mg/L	0.10000		94	80-120			
Beryllium	0.0976	0.0030	80000.0	mg/L	0.10000		98	80-120			
Boron	1.02	0.100	0.0064	mg/L	1.0000		102	80-120			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Calcium	0.979	0.500	0.0311	mg/L	1.0000		98	80-120			
Chromium	0.103	0.0100	0.0009	mg/L	0.10000		103	80-120			
Cobalt	0.0986	0.0100	0.0005	mg/L	0.10000		99	80-120			
Copper	0.0990	0.0050	0.0005	mg/L	0.10000		99	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.0997	0.0100	0.0017	mg/L	0.10000		100	80-120			
Nickel	0.0987	0.0050	0.0006	mg/L	0.10000		99	80-120			
Selenium	0.0990	0.0100	0.0010	mg/L	0.10000		99	80-120			
Silver	0.100	0.0050	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.100	0.0010	0.0002	mg/L	0.10000		100	80-120			
Vanadium	0.0993	0.0100	0.0071	mg/L	0.10000		99	80-120			
Zinc	0.100	0.0100	0.0021	mg/L	0.10000		100	80-120			
Lithium	0.0988	0.0500	0.0021	mg/L	0.10000		99	80-120			
Matrix Spike (6090169-MS1)		So	urce: AZI0	077-17		Prepai	red: 09/0	8/16 Ana	ılyzed: 09	9/09/16	
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	ND	106	75-125			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125			
Barium	0.169	0.0100	0.0004	mg/L	0.10000	0.0759	93	75-125			
Beryllium	0.0930	0.0030	80000.0	mg/L	0.10000	ND	93	75-125			
Boron	1.94	1.00	0.0642	mg/L	1.0000	0.888	105	75-125			
Cadmium	0.0991	0.0010	0.00007	mg/L	0.10000	0.0004	99	75-125			
Calcium	96.8	5.00	0.311	mg/L	1.0000	95.9	82	75-125			
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	ND	105	75-125			
Cobalt	0.0997	0.0100	0.0005	mg/L	0.10000	ND	100	75-125			
Copper	0.0960	0.0050	0.0005	mg/L	0.10000	ND	96	75-125			
Lead	0.0960	0.0050	0.0001	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.125	0.0100	0.0017	mg/L	0.10000	0.0266	98	75-125			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000	0.0011	101	75-125			
Selenium	0.0978	0.0100	0.0010	mg/L	0.10000	ND	98	75-125			
Silver	0.0977	0.0050	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.0966	0.0010	0.0002	mg/L	0.10000	ND	97	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	0.0027	98	75-125			
				-							



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Report No.: AZI0077

September 14, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090169 - EPA 3	8005A										
Matrix Spike Dup (60901	69-MSD1)	So	urce: AZI0	077-17		Prepar	red: 09/0	8/16 Ana	lyzed: 09	9/09/16	
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	ND	103	75-125	3	20	
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125	0.8	20	
Barium	0.168	0.0100	0.0004	mg/L	0.10000	0.0759	92	75-125	0.7	20	
Beryllium	0.0960	0.0030	0.00008	mg/L	0.10000	ND	96	75-125	3	20	
Boron	1.96	1.00	0.0642	mg/L	1.0000	0.888	107	75-125	0.8	20	
Cadmium	0.0992	0.0010	0.00007	mg/L	0.10000	0.0004	99	75-125	0.09	20	
Calcium	98.6	5.00	0.311	mg/L	1.0000	95.9	263	75-125	2	20	QM-02
Chromium	0.107	0.0100	0.0009	mg/L	0.10000	ND	107	75-125	2	20	
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	0.5	20	
Copper	0.0975	0.0050	0.0005	mg/L	0.10000	ND	97	75-125	2	20	
Lead	0.0973	0.0050	0.0001	mg/L	0.10000	ND	97	75-125	1	20	
Molybdenum	0.126	0.0100	0.0017	mg/L	0.10000	0.0266	100	75-125	1	20	
Nickel	0.100	0.0050	0.0006	mg/L	0.10000	0.0011	99	75-125	2	20	
Selenium	0.0955	0.0100	0.0010	mg/L	0.10000	ND	95	75-125	2	20	
Silver	0.0938	0.0050	0.0005	mg/L	0.10000	ND	94	75-125	4	20	
Thallium	0.0982	0.0010	0.0002	mg/L	0.10000	ND	98	75-125	2	20	
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125	3	20	
Zinc	0.104	0.0100	0.0021	mg/L	0.10000	0.0027	102	75-125	4	20	
Lithium	0.0983	0.0500	0.0021	mg/L	0.10000	0.0024	96	75-125	4	20	
Post Spike (6090169-PS1	1)	So	urce: AZI0	077-17		Prepar	red: 09/0	8/16 Ana	lyzed: 09	9/09/16	
Antimony	101			ug/L	100.00	0.299	101	80-120			
Arsenic	102			ug/L	100.00	0.235	101	80-120			
Barium	175			ug/L	100.00	75.9	99	80-120			
Beryllium	97.5			ug/L	100.00	0.0116	97	80-120			
Boron	1910			ug/L	1000.0	888	102	80-120			
Cadmium	101			ug/L	100.00	0.400	101	80-120			
Calcium	98600			ug/L	1000.0	95900	262	80-120			QM-02
Chromium	101			ug/L	100.00	0.306	101	80-120			
Cobalt	95.3			ug/L	100.00	0.465	95	80-120			
Copper	93.2			ug/L	100.00	0.123	93	80-120			
Lead	94.2			ug/L	100.00	0.0087	94	80-120			
Molybdenum	128			ug/L	100.00	26.6	101	80-120			
Nickel	94.4			ug/L	100.00	1.09	93	80-120			
Selenium	95.4			ug/L	100.00	-0.575	96	80-120			
Silver	97.8			ug/L	100.00	0.0070	98	80-120			
Thallium	95.3			ug/L	100.00	0.0424	95	80-120			
Vanadium	98.9			ug/L	100.00	0.409	99	80-120			
Zinc	101			ug/L	100.00	2.66	98	80-120			
Lithium	101			ug/L	100.00	2.37	98	80-120			



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

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit MDL - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

- **QR-03** The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.
- **QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- **QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
 - J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

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

PAGE: 1 OF 2	CONTAINER TYPE PRESERVATION			G - CLEAR GLASS 3 - HNO3 V - VOA VIAL 4 - NAOH <6°C		0 - OTHER 6 - Na ₂ S ₂ O ₃ , ≤6°C		*MATRIX CODES	DW - DRINKING WATER S - SOIL	GROUNDWATER SD-	STORM WATER L- WATER P-	REMARKS/ADDITIONAL INFORMATION													LAB #: A 2 T A 7 7 7	++62++	Tracking #10 mms	
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Pace Analytical *						CC: Maria Padilla Heath McCorkle	PO#	aburch@southernco.com	Plant Hammond AP 1&2	CCR	SAMPLE IDENTIFICATION		Hauc-7	H9WC-8	H4VC-9	4anc-10	49KC-11	HGWC-12	Hawc-13				Hanc-17	HGWC-18	DATE/TIME: 09 10 (16 16:00	DATE/TIME:	35 1/6 1240	A C Max
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Pace Analytical Services, Inc. 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com ANALYSIS REQUESTED ANALYSIS REQU	
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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 1:46:17PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 09/02/16 12:40

Work Order: AZI0077

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 18

#Containers: 56

Minimum Temp(\mathbf{C}): 1.0

Maximum Temp(C):

1.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

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Comments:



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: AZJ0580 October 31, 2016

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, Inc.

All test results relate only to the samples analyzed.



Georgia Power 2480 Maner Road Atlanta GA, 30339 PACE ANALYTICAL SERVICES, INC.

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

Attention: Mr. Joju Abraham October 31, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-1	AZJ0580-01	Ground Water	10/19/16 11:15	10/20/16 11:40
HGWA-2	AZJ0580-02	Ground Water	10/19/16 13:25	10/20/16 11:40
HGWA-3	AZJ0580-03	Ground Water	10/19/16 15:10	10/20/16 11:40
HGWA-4	AZJ0580-04	Ground Water	10/19/16 15:22	10/20/16 11:40



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

Report No.: AZJ0580 Project: CCR Event

Client ID: HGWA-1 Lab Number ID: AZJ0580-01

Date/Time Sampled: 10/19/2016 11:15:00AM Date/Time Received: 10/20/2016 11:40:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	380	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 22:08	6100567	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 22:08	6100567	RLC
Sulfate	46	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 22:08	6100567	RLC
Metals, Total											
Antimony	0.0014	0.0030	0.0008	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Barium	0.0293	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Boron	0.0224	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Calcium	99.2	25.0	1.55	mg/L	EPA 6020B		50	10/21/16 09:35	10/25/16 14:00	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 13:52	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:38	6100578	MTC

October 31, 2016



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

Report No.: AZJ0580 Client ID: HGWA-2

Date/Time Sampled: 10/19/2016 1:25:00PM

Matrix: Ground Water

October 31, 2016

Project: CCR Event
Lab Number ID: AZJ0580-02

Date/Time Received: 10/20/2016 11:40:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	176	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	6.1	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/23/16 00:12	6100567	RLC
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/23/16 00:12	6100567	RLC
Sulfate	44	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/23/16 00:12	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Barium	0.111	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Beryllium	0.0001	0.0030	0.00008	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Boron	0.0341	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Calcium	21.7	2.50	0.155	mg/L	EPA 6020B		5	10/21/16 09:35	10/25/16 14:06	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Cobalt	0.0201	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:23	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:41	6100578	MTC



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

Report No.: AZJ0580
Client ID: HGWA-3

Date/Time Sampled: 10/19/2016 3:10:00PM

Matrix: Ground Water

October 31, 2016

Project: CCR Event

Lab Number ID: AZJ0580-03

Date/Time Received: 10/20/2016 11:40:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	357	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	6.5	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/23/16 00:33	6100567	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/23/16 00:33	6100567	RLC
Sulfate	43	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/23/16 00:33	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Barium	0.123	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Boron	0.0085	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Calcium	73.2	5.00	0.311	mg/L	EPA 6020B		10	10/21/16 09:35	10/25/16 14:11	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Lithium	0.0030	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:29	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:43	6100578	MTC



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

Report No.: AZJ0580
Client ID: HGWA-4

Date/Time Sampled: 10/19/2016 3:22:00PM

Matrix: Ground Water

October 31, 2016

Project: CCR Event

Lab Number ID: AZJ0580-04

Date/Time Received: 10/20/2016 11:40:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	338	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/23/16 00:53	6100567	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/23/16 00:53	6100567	RLC
Sulfate	11	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/23/16 00:53	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Barium	0.0332	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Boron	0.0180	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Calcium	89.7	5.00	0.311	mg/L	EPA 6020B		10	10/21/16 09:35	10/25/16 14:17	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Lithium	0.0042	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:35	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:45	6100578	MTC



Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZJ0580

PACE ANALYTICAL SERVICES, INC.

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

October 31, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch 6100605 - SM 2540 C												
Blank (6100605-BLK1)						Prepare	ed & Anal	yzed: 10/2	4/16			
Total Dissolved Solids	ND	25	10	mg/L								
LCS (6100605-BS1)						Prepare	ed & Anal	yzed: 10/2	4/16			
Total Dissolved Solids	397	25	10	mg/L	400.00		99	84-108				
Duplicate (6100605-DUP1)		So	urce: AZJ05	80-03		Prepare	ed & Anal	yzed: 10/2	4/16			
Total Dissolved Solids	296	25	10	mg/L		357		•	19	10	QR-03	
Duplicate (6100605-DUP2)		So	urce: AZJ05	82-01		Prepare	ed & Anal	yzed: 10/2	4/16			
Total Dissolved Solids	238	25	10	mg/L		272		-	13	10	QR-03	
Batch 6100666 - SM 2540 C												
Blank (6100666-BLK1)						Prepared & Analyzed: 10/26/16						
Total Dissolved Solids	ND	10	10	mg/L				-				
LCS (6100666-BS1)						Prepare	ed & Anal	vzed: 10/2	6/16			
Total Dissolved Solids	400	10	10	mg/L	400.00		100	84-108				
Duplicate (6100666-DUP1)		Source: AZJ0580-03RE1					Prepared & Analyzed: 10/26/16					
Total Dissolved Solids	298	10	10	mg/L		282		-	6	10		
Duplicate (6100666-DUP2)		So	urce: AZJ05	82-01RE1		Prepare	ed & Anal	yzed: 10/2	6/16			
Total Dissolved Solids	281	10	10	mg/L		268			5	10		



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October 31, 2016

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 6100567 - EPA 300.0													
Blank (6100567-BLK1)						Prepared: 10/21/16 Analyzed: 10/22/16							
Chloride	ND	0.25	0.01	mg/L				· ·					
Fluoride	ND	0.10	0.02	mg/L									
Sulfate	ND	1.0	0.05	mg/L									
LCS (6100567-BS1)						Prepare	ed: 10/21/	16 Analyz	ed: 10/22	/16			
Chloride	9.72	1.0	0.01	mg/L	10.010	·	97	90-110					
Fluoride	9.80	0.10	0.02	mg/L	10.020		98	90-110					
Sulfate	9.77	5.0	0.05	mg/L	10.020		98	90-110					
Matrix Spike (6100567-MS1)		Sou	ırce: AZJ05	18-01		Prepared: 10/21/16 Analyzed: 10/22/16							
Chloride	11.1	1.0	0.01	mg/L	10.010	1.06	100	90-110					
Fluoride	10.3	0.10	0.02	mg/L	10.020	0.15	101	90-110					
Sulfate	14.4	5.0	0.05	mg/L	10.020	4.73	97	90-110					
Matrix Spike (6100567-MS2)		Sou	ırce: AZJ05	80-01		Prepared: 10/21/16 Analyzed: 10/22/16							
Chloride	15.8	1.0	0.01	mg/L	10.010	5.76	100	90-110					
Fluoride	10.5	0.10	0.02	mg/L	10.020	0.10	104	90-110					
Sulfate	51.3	5.0	0.05	mg/L	10.020	46.2	51	90-110			QM-02		
Matrix Spike Dup (6100567-MSD1)		Source: AZJ0518-01					ed: 10/21/	16 Analyz	ed: 10/22	/16			
Chloride	11.1	1.0	0.01	mg/L	10.010	1.06	100	90-110	0.4	15			
Fluoride	10.3	0.10	0.02	mg/L	10.020	0.15	101	90-110	0.07	15			
Sulfate	14.5	5.0	0.05	mg/L	10.020	4.73	97	90-110	0.4	15			



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham October 31, 2016

Report No.: AZJ0580

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100552 - EPA 3005A											
Blank (6100552-BLK1)	Prepared & Analyzed: 10/21/16										
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							
				3							
LCS (6100552-BS1)	0.100	0.0000	0.0000			Prepare		/zed: 10/2	1/16		
Antimony	0.103	0.0030	0.0008	mg/L	0.10000		103	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	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	1.07	0.100	0.0064	mg/L	1.0000		107	80-120			
Cadmium	0.106	0.0010	0.00007	mg/L	0.10000		106	80-120			
Calcium	1.09	0.500	0.0311	mg/L	1.0000		109	80-120			
Chromium	0.107	0.0100	0.0009	mg/L	0.10000		107	80-120			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Copper	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Lead	0.103	0.0050	0.0001	mg/L	0.10000		103	80-120			
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000		104	80-120			
Nickel	0.103	0.0050	0.0006	mg/L	0.10000		103	80-120			
Selenium	0.104	0.0100	0.0010	mg/L	0.10000		104	80-120			
Silver	0.108	0.0050	0.0005	mg/L	0.10000		108	80-120			
Thallium	0.101	0.0010	0.0002	mg/L	0.10000		101	80-120			
Vanadium	0.108	0.0100	0.0071	mg/L	0.10000		108	80-120			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000		106	80-120			
Lithium	0.106	0.0500	0.0021	mg/L	0.10000		106	80-120			



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Georgia Power 2480 Maner Road Atlanta GA, 30339

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Report No.: AZJ0580

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 6100552 - EPA 3005A													
Matrix Spike (6100552-MS1)		Sou	urce: AZJ058	30-01	Prepared & Analyzed: 10/21/16								
Antimony	0.100	0.0030	0.0008	mg/L	0.10000	0.0014	99	75-125					
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125					
Barium	0.127	0.0100	0.0004	mg/L	0.10000	0.0293	97	75-125					
Beryllium	0.0950	0.0030	0.00008	mg/L	0.10000	ND	95	75-125					
Boron	1.01	0.100	0.0064	mg/L	1.0000	0.0224	99	75-125					
Cadmium	0.0981	0.0010	0.00007	mg/L	0.10000	ND	98	75-125					
Calcium	106	25.0	1.55	mg/L	1.0000	99.2	694	75-125			QM-02		
Chromium	0.103	0.0100	0.0009	mg/L	0.10000	ND	103	75-125					
Cobalt	0.0992	0.0100	0.0005	mg/L	0.10000	ND	99	75-125					
Copper	0.0972	0.0050	0.0005	mg/L	0.10000	ND	97	75-125					
Lead	0.0971	0.0050	0.0001	mg/L	0.10000	ND	97	75-125					
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000	ND	102	75-125					
Nickel	0.0995	0.0050	0.0006	mg/L	0.10000	ND	99	75-125					
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125					
Silver	0.0997	0.0050	0.0005	mg/L	0.10000	ND	100	75-125					
Thallium	0.0988	0.0010	0.0002	mg/L	0.10000	ND	99	75-125					
Vanadium	0.104	0.0100	0.0071	mg/L	0.10000	ND	104	75-125					
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125					
Lithium	0.0943	0.0500	0.0021	mg/L	0.10000	ND	94	75-125					
Matrix Spike Dup (6100552-MSD1)		Soi	urce: AZJ058			Prenare	ad & Analı	yzed: 10/2	1/16				
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	0.0014	102	75-125	2	20			
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000	ND	105	75-125	3	20			
Barium	0.127	0.0100	0.0004	mg/L	0.10000	0.0293	97	75-125	0.002	20			
Beryllium	0.0979	0.0030	0.00008	mg/L	0.10000	ND	98	75-125	3	20			
Boron	1.03	0.100	0.0064	mg/L	1.0000	0.0224	101	75-125	2	20			
Cadmium	0.0983	0.0010	0.00007	mg/L	0.10000	ND	98	75-125	0.2	20			
Calcium	94.2	25.0	1.55	mg/L	1.0000	99.2	NR	75-125	12	20	QM-02		
Chromium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125	0.3	20	Q 02		
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125	1	20			
Copper	0.0965	0.0050	0.0005	mg/L	0.10000	ND	97	75-125	0.7	20			
Lead	0.0985	0.0050	0.0001	mg/L	0.10000	ND	99	75-125	1	20			
Molybdenum	0.106	0.0100	0.0001	mg/L	0.10000	ND	106	75-125 75-125	4	20			
Nickel	0.0992	0.0050	0.0017	mg/L	0.10000	ND	99	75-125 75-125	0.2	20			
Selenium	0.0992	0.0030	0.0000	_	0.10000	ND	102	75-125 75-125	0.2	20			
Silver	0.102	0.0050	0.0010	mg/L		ND ND	102	75-125 75-125	2	20			
	0.102	0.0030	0.0005	mg/L	0.10000								
Thallium	0.0981			mg/L	0.10000	ND	98	75-125	0.8	20			
Vanadium		0.0100	0.0071	mg/L	0.10000	ND	106	75-125	1	20			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125	0.03	20			
Lithium	0.0958	0.0500	0.0021	mg/L	0.10000	ND	96	75-125	2	20			



Georgia Power 2480 Maner Road Atlanta GA, 30339

Mercury

0.00249

0.00050

0.000041

Attention: Mr. Joju Abraham

October 31, 2016

Report No.: AZJ0580

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 6100552 - EPA 3005A													
Post Spike (6100552-PS1)		So	urce: AZJ058	30-01		Prepared & Analyzed: 10/21/16							
Antimony	88.2			ug/L	100.00	1.39	87	80-120					
Arsenic	103			ug/L	100.00	0.604	103	80-120					
Barium	123			ug/L	100.00	29.3	94	80-120					
Beryllium	98.3			ug/L	100.00	0.0275	98	80-120					
Boron	1040			ug/L	1000.0	22.4	102	80-120					
Cadmium	98.1			ug/L	100.00	-0.0185	98	80-120					
Calcium	99300			ug/L	1000.0	99200	14	80-120			QM-02		
Chromium	101			ug/L	100.00	0.158	101	80-120					
Cobalt	99.2			ug/L	100.00	0.285	99	80-120					
Copper	95.0			ug/L	100.00	0.0671	95	80-120					
Lead	97.5			ug/L	100.00	0.0318	97	80-120					
Molybdenum	98.8			ug/L	100.00	0.295	99	80-120					
Nickel	99.9			ug/L	100.00	0.122	100	80-120					
Selenium	105			ug/L	100.00	0.192	105	80-120					
Silver	97.3			ug/L	100.00	0.0256	97	80-120					
Thallium	99.8			ug/L	100.00	0.106	100	80-120					
Vanadium	108			ug/L	100.00	0.275	107	80-120					
Zinc	106			ug/L	100.00	0.602	105	80-120					
Lithium	97.7			ug/L	100.00	1.07	97	80-120					
Batch 6100578 - EPA 7470A													
Blank (6100578-BLK1)					Prepared & Analyzed: 10/24/16								
Mercury	ND	0.00050	0.000041	mg/L									
LCS (6100578-BS1)						Prepare	ed & Analy	/zed: 10/2	4/16				

2.5000E-3

mg/L

100

80-120



Georgia Power 2480 Maner Road Atlanta GA, 30339

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October 31, 2016

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch 6100578 - EPA 7470A												
Matrix Spike (6100578-MS1)		Source: AZJ0518-01 Prepared & Analyzed: 10/24/16										
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125				
Matrix Spike Dup (6100578-MSI	01)	Sou		Prepared & Analyzed: 10/24/16								
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	0.2	20		
Post Spike (6100578-PS1)		Source: AZJ0518-01					Prepared & Analyzed: 10/24/16					
Mercury	1.74			ug/L	1.6667	-0.0112	105	80-120				



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham October 31, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit MDL - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

- **QR-03** The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.
- QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration
 - **J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

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



Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Atlanta GA, 30339

Report Notes

PACE ANALYTICAL SERVICES, INC.

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

The unpreserved 1 qt squat collected on 10/19/16 at 1522 was labeled HGWA-22 instead of HGWA-4 as listed on the COC. The COC was used for login purposes. CFH

October 31, 2016

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-lib com

6

PAGE:

unfres, sount labeled HCWA-22 5 - NaOHZnAc, :6°C 7 - s6°C not frozen 6 - Na, S₂O₃, ±6°C 174 10H2/16 2 - H-SO, 26°C REMARKS/ADDITIONAL INFORMATION 4 - N8OH, 56°C St. Stubge Sp. Soup P - PRODUCT PRESERVATION 1 - HCI, 16°C Extra Radium volume collected for Lab QA/QC L. LIQUID 3. HNO S · SOIL A - AIR 20580 FOR LAB USE ONL' *MATRIX CODES: DRINKING WATER SURFACE WATER GROUNDWATER STORM WATER WASTEWATER A - AMBER GLASS G · CLEAR GLASS CONTAINER TYPE V · VOA VIAL S · STERILE O · OTHER P. PLASTIC SW - SURFACE ST - STORM V W - WATER ntered into racking #: AB# GW. - MO WW 22 1 JKE - 0 N W B E C Z 880 DATE/TIME: 16/20/16 DATE/TIME: Tack ANALYSIS REQUESTED 2016 10 19 Hammond AP 1&2 COC.xlsx (DSC6/S156 918-WS a N Radium 226 & 228 FZA EPA 300.0 & SM 2540C) a. CI' E' 20' 8 LD2 EPA 6020/7470) RELINQUISHED'BY: RELINQUISHED BY ۵ VI & III agA Tas her eleteM CALTANER TYPE WEDERNATION: jo# OOZ-4-ZEES 3 e 3 laburch@southernco.com SAMPLE IDENTIFICATION 1522 Heath McCorkle HGWA-3 HGWA-2 HGWA-4 HGWA-1 Maria Padilla DATE/TIME: (D/19/16 DATE/TIME: 1/37/13/ 300 Plant Hammond - AP 1&2 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER CCR g × H × OKKE × Z ž 0054 New No M.Rogers MATRIX CODE* REQUESTED COMPLETION DATE Ø₩ GW MS. MΘ 241 Ralph McGill Blvd SE B10185 Joju Abraham SAMPLED BY AND TITLE A Shoredts AS PROJECT NAME/STATE Collection 15:10 11:15 TIME 13.25 15:22 CENEB BY LAB Atlanta, GA 30308 A Shoredits A RECEIVED BY: CLIENT NAME Georgia Pawer 404-506-7239 REPORT TO: Callection 10/19/16 10/19/16 10/19/16 10/19/16 PROJECT

Page 15 of 15



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

LOG-IN CHECKLIST

Printed: 10/31/2016 5:23:27PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR EventWork Order:AZJ0580Date Received:10/20/16 11:40Logged In By:Charles Hawks

OBSERVATIONS

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

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

CHECKLIST ITEMS

YES
YES
YES
NO
YES

Comments:

The unpreserved 1 qt squat collected on 10/19/16 at 1522 was labeled HGWA-22 instead of HGWA-4 as listed on the COC. The COC was used for login purposes. CFH

Greensburg, PA 15601 (724)850-5600



November 23, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30200042

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on October 21, 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

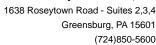
Sugnely Sellins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30200042

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

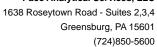
Tennessee Certification #: TN2867

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





SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30200042

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30200042001	HGWA-1	Water	10/19/16 11:15	10/21/16 10:40
30200042002	HGWA-2	Water	10/19/16 13:25	10/21/16 10:40
30200042003	HGWA-3	Water	10/19/16 15:10	10/21/16 10:40
30200042004	HGWA-4	Water	10/19/16 15:22	10/21/16 10:40



SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30200042

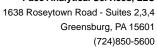
Lab ID	Sample ID	Method	Analysts	Analytes Reported
30200042001	HGWA-1	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200042002	HGWA-2	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200042003	HGWA-3	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200042004	HGWA-4	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30200042

Sample: HGWA-1	Lab ID: 30200	0042001 Collected: 10/19/16 11:15	Received:	10/21/16 10:40 N	/latrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0805 ± 0.118 (0.252) C:86% T:NA	pCi/L	11/05/16 18:42	13982-63-3	
Radium-228	EPA 9320	0.132 ± 0.587 (1.26) C:58% T:78%	pCi/L	11/19/16 19:44	15262-20-1	
Total Radium	Total Radium Calculation	0.213 ± 0.705 (1.51)	pCi/L	11/21/16 15:20	7440-14-4	
Sample: HGWA-2	Lab ID: 30200	0042002 Collected: 10/19/16 13:25	Received:	10/21/16 10:40 N	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.284 ± 0.165 (0.214) C:91% T:NA	pCi/L	11/05/16 18:42	13982-63-3	
Radium-228	EPA 9320	0.828 ± 0.564 (1.06) C:66% T:75%	pCi/L	11/19/16 19:44	15262-20-1	
Total Radium	Total Radium Calculation	1.11 ± 0.729 (1.27)	pCi/L	11/21/16 15:20	7440-14-4	
Sample: HGWA-3	Lab ID: 30200	0042003 Collected: 10/19/16 15:10	Received:	10/21/16 10:40 N	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 ± 0.118 (0.222) C:89% T:NA	pCi/L	11/05/16 18:42	13982-63-3	
Radium-228	EPA 9320	0.519 ± 0.455 (0.893) C:75% T:83%	pCi/L	11/19/16 19:47	15262-20-1	
Total Radium	Total Radium Calculation	0.626 ± 0.573 (1.12)	pCi/L	11/21/16 15:20	7440-14-4	
Sample: HGWA-4	Lab ID: 30200	0042004 Collected: 10/19/16 15:22	Received:	10/21/16 10:40 N	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.154 ± 0.137 (0.243) C:92% T:NA	pCi/L	11/05/16 18:42	13982-63-3	
Radium-228	EPA 9320	2.19 ± 0.776 (1.15) C:56% T:86%	pCi/L	11/19/16 19:47	15262-20-1	
Total Radium	Total Radium Calculation	2.34 ± 0.913 (1.39)	pCi/L	11/21/16 15:20	7440-14-4	





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200042

QC Batch: 238844 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30200042001, 30200042002, 30200042003, 30200042004

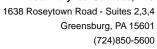
METHOD BLANK: 1173703 Matrix: Water

Associated Lab Samples: 30200042001, 30200042002, 30200042003, 30200042004

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.0306 ± 0.0501 (0.101) C:95% T:NA pCi/L 11/04/16 23:09

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





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200042

QC Batch: 239880 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30200042003, 30200042004

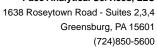
METHOD BLANK: 1178547 Matrix: Water

Associated Lab Samples: 30200042003, 30200042004

 Parameter
 Act \pm Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.935 \pm 0.482 (0.855) C:73% T:95%
 pCi/L
 11/19/16 19:47

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200042

QC Batch: 239879 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30200042001, 30200042002

METHOD BLANK: 1178545 Matrix: Water

Associated Lab Samples: 30200042001, 30200042002

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.825 ± 0.519 (0.961) C:66% T:85%
 pCi/L
 11/19/16 19:42

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.



QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30200042

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

Date: 11/23/2016 01:21 PM

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

	Workorder: AZJ0580	\$	Workorder Name:		Plant Hammond	STATE KOUZZKAJERAJE DI	Own	Owner Received Date:	l Date:		Results	Results Requested By: 11/21/2016	3y: 11/21/2	016
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8	HGWA-3	9	10/19/2016 15:10	5:10	AZJ0580-03		GW	2	×				003	ic
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***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC Keceived on ice I ogiv This chain of custody is considered complete as is since this information is available in the owner laboratory. Custody seal Y or (N) Cooler Temperature on Receipt

Friday, June 17, 2016 11:01:34 AM east of the second of th

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

CHAIN OF CUSTODY RECORD Pace Analytical 110 TE

Pace Analytical Services, inc. 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 : FAX (770) 734-4201 . NOW 285-187 (277)

Y, PEACHTREE CORNERS, GA 30092 PAGE: 1

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Sample Condition Upon Receipt Pittsburgh 30200042 Pace Analytical Pace Atlanta Project# Client Name: Courier: ✓ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other Tracking #: 6812 5099 0526 Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no NA Type of Ice: Wet Blue None Thermometer Used WA °C Correction Factor: WA °C Final Temp: WA Observed Temp Cooler Temperature Temp should be above freezing to 6°C Date and Initials of person examining contents: メール・フレーリ No N/A Yes Comments: Chain of Custody Present: Chain of Custody Filled Out: 3. Chain of Custody Relinquished: Sampler Name & Signature on COC: Sample Labels match COC: 5. Matrix: ₩+ -Includes date/time/ID/Analysis Samples Arrived within Hold Time: Short Hold Time Analysis (<72hr remaining): Rush Turn Around Time Requested: 9. Sufficient Volume: 10. Correct Containers Used: -Pace Containers Used: 11. Containers Intact: 12. Filtered volume received for Dissolved tests All containers needing preservation have been checked. 13. OH LZ All containers needing preservation are found to be in compliance with EPA recommendation. Initial when KH Date/time of exceptions: VOA, coliform, TOC, O&G, Phenolics preservation Lot # of added preservative 14. Headspace in VOA Vials (>6mm): 15. Trip Blank Present: Trip Blank Custody Seals Present Initial when Rad Aqueous Samples Screened > 0.5 mrem/hr Date: 10-22-10 Client Notification/ Resolution: Person Contacted: 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.

1/16/2016 7,1 Test: Date: Worklist: Matrix: Analyst:

Sample Collection Date: Sample MS I.D. Sample MSD 1.D.

Sample Matrix Spike Control Assessment

Sample I.D.

178545 0.825 0.498 0.961 3.25 N/A Pass MB MDC: MB Numerical Performance Indicator: MB Sample 1D MB concentration: MB Status vs Numerical Indicator: MB Status vs. MDC: M/B Counting Uncertainty

Method Blank Assessment

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Spike Volume Used in MS (mL) Spike Volume Used in MSD (mL)

Spike 1.D.

Laboratory Control Sample Assessment

LCSD32404 LCSD (Y or N)? LCS32404 Spike Concentration (pCi/mL): Count Date: Spike I.D.:

Sample Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Result:

Spike uncertainty (calculated):

MSD Aliquot (L, g, F) MSD Target Conc. (pCi/L, g, F):

MS Aliquot (L. g, F) MS Target Conc.(pCi/L, g, F) Sample Result

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

11/19/2016 16-027 26.037 0.20 0.803 6.489 0.467 6.876 0.75 0.889 Ϋ́ Result (pC//L, g, F):
LCS/LCSD Counting Uncertainty (pC//L, g, F):
Numerical Performance Indicator: Percent Recovery: Status vs Numerical Indicator: Volume Used (mL): Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated):

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/Matrix Spike Duplicate Sample Assessment

> other than LCS/LCSD in he space below

1.237 0.569 1.514 0.603

Sample Result Courting Uncertainty (pCifl., g, F):
Sample Duplicate Result (pCifl., g, F):
Sample Duplicate Result (pCifl., g, F):
Are sample and/or duplicate results below MDC?

See Below ##

-0.655 20.15%

Duplicate RPD:

Duplicate Numerical Performance Indicator.

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD

N/A Pass

Enter Duplicate sample IDs if

30199878004

Sample i.D.:

Status vs Recovery

Duplicate Sample Assessmen

Duplicate Sample I.D. 30199878004DUP

MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:

MS Status vs Recovery: MSD Status vs Recovery;

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:

Ra+228 NELAC DW2 Printed: 11/22/2016 3:55 PM

Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample MS I.D. Sample MSD I.D. Spike I.D.:

Sample Collection Date: Sample I.D.

Sample Matrix Spike Control Assessment

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Spike Volume Used in MS (mL):

Spike Volume Used in MSD (mL):

11/16/2016 Ra-228 JLW 32405 Worklist: Matrix: Test: Date: Analyst:

See Comment 1178547 0.935 0.452 0.855 4.05 N/A MB Sample ID MB concentration: MB Numerical Performance Indicator: M/B Counting Uncertainty: MB MDC: MB Status vs Numerical Indicator: MB Status vs. MDC Method Blank Assessment

MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated):

MS Aliquot (L, g, F): MS Target Conc.(pCi/L, g, F): Sample Result:

Sample Matrix Spike Result:

Sample Result Counting Uncertainty (pCi/L, g, F):

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.

LCSD32405 SD (Y or N)? LCS32405 11/19/2016 122.93% 16-027 26.037 0.20 0.807 6.450 0.464 7.929 0.807 LCS/LCSD Counting Uncertainty (pCi/L, g, F): Count Date: Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated): Result (pCi/L, g, F): Numerical Performance Indicator: Spike Concentration (pCi/mL): Volume Used (mL): Spike I.D. Laboratory Control Sample Assessment

Matrix Spike/Matrix Spike Duplicate Sample Assessment Status vs Numerical Indicator: Status vs Recovery

Duplicate Sample Assessment

Percent Recovery:

MSD Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery:

MSD Status vs Recovery

Sample I.D. Sample MS I.D. Sample MSD I.D.

Enter Duplicate LCS/LCSD in sample IDs if he space below other than 30200226001DUP See Below ## 30200226001 1.996 109.60% 1.006 0.544 0.294 0.439 Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC? Sample I.D.: Duplicate Sample I.D. Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Duplicate RPD: Duplicate Numerical Performance Indicator

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

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

N/A

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD:

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

Ra-228 NELAC DW2 Printed: 11/22/2016 3:56 PM

Quality Control Sample Performance Assessment

Sample Matrix Spike Control Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date: Sample I.D. Sample MS I.D.

Ra-226

Test

Face Analytical"

1/3/2016 32222 DW Analyst: Worklist: Matrix: Date:

Method Blank Assessment

0.050 0.101 1.20 N/A Pass .031 MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC:

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)

MSD Aliquot (L, g, F): Spike uncertainty (calculated) Sample Result MS Target Conc.(pCi/l., g, F) MSD Target Conc. (pCi/L, g, F)

LCSD32222

CS3222 11/5/2016

> Count Date: Spike 1.D.:

16-026 44.675

Spike Concentration (pCi/mL): Volume Used (mL): Aliquot Volume (L, g, F); Farget Conc. (pCi/L, g, F): Result (pCi/L, g, F):

0.10 0.501 8.914 0.419 8.283 0.789

Uncertainty (Calculated):

LCS/LCSD Counting Uncertainty (pCi/L, g, F): Numerical Performance Indicator:

(YorN)

Laboratory Control Sample Assessment

Sample Matrix Spike Duplicate Result: Sample Matrix Spike Result. Sample Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Result Counting Uncertainty (pGi/L, g, F);

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:

MSD Status vs Recovery:

Sample I.D. Sample MS I.D. Sample MSD I.D.

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS/ MSD Duplicate RPD: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator:

CS/LCSD in the

other than

30200041003DUP

30200041003

Sample I.D.:

Duplicate Sample I.D.

Percent Recovery: Status vs Numerical Indicator:

Status vs Recovery

Duplicate Sample Assessment

space below,

0.063 0.490 0.258

Sample Result (pCifL, g, F):
Sample Result Counting Uncertainty (pCifL, g, F):
Sample Duplicate Result (pCifL, g, F):

See Below ##

Are sample and/or duplicate results below MDC?

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):

Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator:

-3.182 157.41%

Duplicate RPD:

Fail**

Duplicate Status vs RPD;

٨

Enter Duplicate sample IDs if 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 म्झूपींफे are below the MDC.

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

Comments:

Printed: 11/22/2016 3:55 PM TAR DW QC



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: AZJ0621
October 28, 2016

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, Inc.

All test results relate only to the samples analyzed.



Georgia Power 2480 Maner Road

Attention: Mr. Joju Abraham

Atlanta GA, 30339 October 28, 2016

ANALYTICAL REPORT FOR SAMPLES

PACE ANALYTICAL SERVICES, INC.

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

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-5	AZJ0621-01	Ground Water	10/20/16 11:07	10/21/16 11:48
HGWA-6	AZJ0621-02	Ground Water	10/20/16 13:08	10/21/16 11:48
HGWC-7	AZJ0621-03	Ground Water	10/20/16 12:30	10/21/16 11:48
HGWC-8	AZJ0621-04	Ground Water	10/20/16 13:55	10/21/16 11:48
HGWC-9	AZJ0621-05	Ground Water	10/20/16 15:50	10/21/16 11:48
Dup-1	AZJ0621-06	Ground Water	10/20/16 00:00	10/21/16 11:48



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

Report No.: AZJ0621 Project: CCR Event
Client ID: HGWA-5 Lab Number ID: AZJ0621

Date/Time Sampled: 10/20/2016 11:07:00AM

Matrix: Ground Water

Lab Number ID: AZJ0621-01

Date/Time Received: 10/21/2016 11:48:00AM

October 28, 2016

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	99	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	2.2	0.25	0.01	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 18:21	6100645	RNB
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/25/16 12:27	10/25/16 18:21	6100645	RNB
Sulfate	19	1.0	0.05	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 18:21	6100645	RNB
Metals, Total											
Antimony	0.0023	0.0030	0.0008	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Barium	0.0539	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Beryllium	ND	0.0030	80000.0	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Boron	0.0135	0.100	0.0064	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Calcium	26.7	2.50	0.155	mg/L	EPA 6020B		5	10/26/16 09:00	10/27/16 13:32	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Lithium	0.0031	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:06	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:36	6100579	MTC



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

Client ID: HGWA-6

Report No.: AZJ0621

Date/Time Sampled: 10/20/2016 1:08:00PM

Matrix: Ground Water

October 28, 2016

Project: CCR Event

Lab Number ID: AZJ0621-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	225	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 19:25	6100645	RNB
Fluoride	0.06	0.30	0.02	mg/L	EPA 300.0	J	1	10/25/16 12:27	10/25/16 19:25	6100645	RNB
Sulfate	36	1.0	0.05	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 19:25	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Barium	0.157	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Boron	0.0197	0.100	0.0064	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Calcium	50.7	5.00	0.311	mg/L	EPA 6020B		10	10/26/16 09:00	10/27/16 15:27	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Lithium	0.0105	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:11	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:39	6100579	MTC



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

Report No.: AZJ0621
Client ID: HGWC-7

Date/Time Sampled: 10/20/2016 12:30:00PM

Matrix: Ground Water

October 28, 2016

Project: CCR Event
Lab Number ID: AZJ0621-03

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	393	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	49	0.25	0.01	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 20:07	6100645	RNB
Fluoride	0.40	0.30	0.02	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 20:07	6100645	RNB
Sulfate	110	4.0	0.20	mg/L	EPA 300.0		4	10/25/16 12:27	10/25/16 19:46	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Barium	0.0720	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Boron	0.936	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Calcium	96.9	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 13:43	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Molybdenum	0.0360	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Lithium	0.0021	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:17	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:41	6100579	MTC



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

Report No.: AZJ0621 Client ID: HGWC-8

Date/Time Sampled: 10/20/2016 1:55:00PM

Matrix: Ground Water

October 28, 2016

Project: CCR Event

Lab Number ID: AZJ0621-04

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	644	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 22:50	6100645	RNB
Fluoride	0.56	0.30	0.02	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 20:50	6100645	RNB
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 22:50	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Barium	0.0811	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Boron	1.72	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Calcium	134	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 13:49	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Cobalt	0.0020	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Molybdenum	0.472	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Lithium	0.0027	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:23	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:43	6100579	MTC



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

Report No.: AZJ0621 Client ID: HGWC-9

Date/Time Sampled: 10/20/2016 3:50:00PM

Matrix: Ground Water

October 28, 2016

Project: CCR Event

Lab Number ID: AZJ0621-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	642	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 23:11	6100645	RNB
Fluoride	0.56	0.30	0.02	mg/L	EPA 300.0		1	10/25/16 12:27	10/25/16 21:33	6100645	RNB
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 23:11	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Barium	0.0806	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Boron	1.68	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Calcium	133	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 13:55	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Cobalt	0.0020	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Molybdenum	0.477	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Lithium	0.0027	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:29	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:46	6100579	MTC



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

Report No.: AZJ0621
Client ID: Dup-1

Date/Time Sampled: 10/20/2016 12:00:00AM

Matrix: Ground Water

October 28, 2016

Project: CCR Event

Lab Number ID: AZJ0621-06

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	772	25	10	mg/L	SM 2540 C		1	10/25/16 12:55	10/25/16 12:55	6100642	JPT
Inorganic Anions											
Chloride	160	2.5	0.14	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 23:32	6100645	RNB
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	10/25/16 12:27	10/25/16 23:44	6100645	RNB
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	10/25/16 12:27	10/26/16 23:32	6100645	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Barium	0.126	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Boron	1.73	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Calcium	175	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 14:01	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Molybdenum	0.0227	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Lithium	0.0043	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 13:46	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:48	6100579	MTC



Attention: Mr. Joju Abraham

Report No.: AZJ0621

PACE ANALYTICAL SERVICES, INC.

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

October 28, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100642 - SM 2540 C											
Blank (6100642-BLK1)						Prepare	ed & Anal	yzed: 10/2	5/16		
Total Dissolved Solids	ND	25	10	mg/L		-					
LCS (6100642-BS1)						Prepare	ed & Anal	yzed: 10/2	5/16		
Total Dissolved Solids	388	25	10	mg/L	400.00		97	84-108			
Duplicate (6100642-DUP1)		Sou	ırce: AZJ06	21-05		Prepare	ed & Anal	yzed: 10/2	5/16		
Total Dissolved Solids	646	25	10	mg/L		642			0.6	10	
Duplicate (6100642-DUP2)		Sou	ırce: AZJ06	23-04		Prepare	ed & Anal	yzed: 10/2	5/16		
Total Dissolved Solids	323	25	10	mg/L		305			6	10	



Attention: Mr. Joju Abraham

Report No.: AZJ0621

PACE ANALYTICAL SERVICES, INC.

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

October 28, 2016

Inorganic Anions - Quality Control

					Spike	Source		%REC		RPD	
Analyte	Result	RL	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6100645 - EPA 300.0											
Blank (6100645-BLK1)						Prepare	ed & Anal	yzed: 10/2	5/16		
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.10	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6100645-BS1)						Prepare	ed & Anal	yzed: 10/2	5/16		
Chloride	9.99	1.0	0.01	mg/L	10.010		100	90-110			
Fluoride	10.4	0.10	0.05	mg/L	10.020		104	90-110			
Sulfate	10.2	5.0	0.05	mg/L	10.020		102	90-110			
Matrix Spike (6100645-MS1)		Sou	ırce: AZJ06	21-01		Prepare	ed & Anal	yzed: 10/2	5/16		
Chloride	10.7	1.0	0.01	mg/L	10.010	2.20	85	90-110			QM-02
Fluoride	8.83	0.10	0.02	mg/L	10.020	0.10	87	90-110			QM-02
Sulfate	26.0	5.0	0.05	mg/L	10.020	19.1	69	90-110			QM-02
Matrix Spike Dup (6100645-MSD1)		Sou	ırce: AZJ06	21-01		Prepare	ed & Anal	yzed: 10/2	5/16		
Chloride	11.7	1.0	0.01	mg/L	10.010	2.20	95	90-110	8	15	
Fluoride	9.84	0.10	0.02	mg/L	10.020	0.10	97	90-110	11	15	
Sulfate	26.7	5.0	0.05	mg/L	10.020	19.1	77	90-110	3	15	QM-02



Attention: Mr. Joju Abraham October 28, 2016

Report No.: AZJ0621

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100579 - EPA 7470A											
Blank (6100579-BLK1)						Prepare	ed & Anal	yzed: 10/24	1/16		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6100579-BS1)						Prepare	ed & Anal	yzed: 10/24	1/16		
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3	•	97	80-120			
Matrix Spike (6100579-MS1)		Soi	urce: AZJ058	32-01		Prepare	ed & Anal	yzed: 10/24	1/16		
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (6100579-MSD1)		Soi	urce: AZJ058	32-01		Prepare	ed & Anal	yzed: 10/24	1/16		
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125	0.6	20	
Post Spike (6100579-PS1)		Soi	urce: AZJ058	2-01		Drenare	ad & Anal	yzed: 10/24	1/16		
Mercury	1.80		arcc. ALGOOD	ug/L	1.6667	-0.0129	109	80-120	+/ 10		
				J							
Batch 6100671 - EPA 3005A											
Blank (6100671-BLK1)						Prepare	ed & Anal	yzed: 10/26	6/16		
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	-							
Liuliuiii	140	0.0000	0.0021	mg/L							



Attention: Mr. Joju Abraham October 28, 2016

Report No.: AZJ0621

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Batch 6100671 - EPA 3005A LCS (6100671-BS1)	Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Antimony 0.107 0.0030 0.0008 mg.L 0.10000 107 80-120 Arsenic 0.104 0.0050 0.0016 mg.L 0.10000 104 80-120 Barium 0.0971 0.0100 0.0004 mg.L 0.10000 197 80-120 Beryllium 0.0103 0.0008 mg.L 0.10000 193 80-120 Beryllium 0.103 0.0030 0.00008 mg.L 0.10000 103 80-120 Beryllium 0.103 0.0010 0.00004 mg.L 0.10000 103 80-120 Cadmium 0.103 0.0010 0.00007 mg.L 0.10000 103 80-120 Cadmium 0.103 0.0010 0.00007 mg.L 0.10000 105 80-120 Cadmium 0.103 0.0010 0.00007 mg.L 0.10000 105 80-120 Cadmium 0.104 0.105 0.500 0.0311 mg.L 0.10000 105 80-120 Chromium 0.104 0.0103 0.0100 0.0005 mg.L 0.10000 105 80-120 Chromium 0.104 0.0103 0.0100 0.0005 mg.L 0.10000 105 80-120 Chromium 0.104 0.0103 0.0100 0.0005 mg.L 0.10000 104 80-120 Cheat 0.103 0.0104 0.0050 0.0005 mg.L 0.10000 101 80-120 Cheat 0.102 0.0050 0.0005 mg.L 0.10000 101 80-120 Cheat 0.102 0.0050 0.0001 mg.L 0.10000 101 80-120 Cheat 0.102 0.0050 0.0001 mg.L 0.10000 102 80-120 Cheat 0.102 0.0050 0.0001 mg.L 0.10000 102 80-120 Cheat 0.102 0.0050 0.0005 mg.L 0.10000 102 80-120 Cheat 0.102 0.0050 0.0050 0.0051 mg.L 0.10000 102 80-120 Cheat 0.102 0.0050 0.0051 mg.L 0.10000 102 80-120 Cheat 0.102 0.0050 0.0051 mg.L 0.10000 102 80-120 Cheat 0.102 0.102 0.0050 0.0051 mg.L 0.10000 108 80-120 Cheat 0.102 0.102 0.0050 0.0051 mg.L 0.10000 108 80-120 Cheat 0.102 0.102 0.0050 0.0051 mg.L 0.10000 100 100 0.0051 mg.L 0.10000 100 0.0051 mg.L 0.100	Batch 6100671 - EPA 3005A											
Arsenic 0.104 0.0050 0.0016 mg/L 0.10000 104 00-120 Barlum 0.0971 0.0100 0.0004 mg/L 0.10000 97 80-120 Beryllum 0.103 0.0030 0.00008 mg/L 0.10000 105 80-120 Beryllum 0.103 0.0010 0.0004 mg/L 0.10000 105 80-120 Cadmium 0.103 0.0010 0.00007 mg/L 0.10000 105 80-120 Cadmium 1.05 0.500 0.0311 mg/L 1.0000 105 80-120 Calcilum 1.05 0.500 0.0311 mg/L 0.10000 105 80-120 Chromium 0.104 0.104 0.0100 0.0007 mg/L 0.10000 103 80-120 Chromium 0.104 0.0100 0.0005 mg/L 0.10000 104 80-120 Cobalt 0.103 0.0100 0.0005 mg/L 0.10000 101 80-120 Cobalt 0.103 0.0100 0.0005 mg/L 0.10000 101 80-120 Cobalt 0.103 0.0100 0.0005 mg/L 0.10000 101 80-120 Cobalt 0.104 0.0100 0.0005 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.0001 mg/L 0.10000 102 80-120 Klickel 0.102 0.0050 0.0001 mg/L 0.10000 102 80-120 Silver 0.104 0.0100 0.0010 mg/L 0.10000 102 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 100 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Silver 0.103 0.0000 0.0001 mg/L 0.10000 102 80-120 Silver 0.103 0.0000 0.0001 mg/L 0.10000 102 80-120 Silver 0.103 0.0000 0.0001 mg/L 0.10000 102 80-120 Silver 0.105 0.0000 0.0001 mg/L 0.10000 100 80-120 Silver 0.105 0.0000 0.0001 mg/L 0.10000 100 100 80-120 Silver 0.107 0.0000 0.0001 mg/L 0.10000 100 100 80-120 Silver 0.107 0.0000 0.0001 mg/L 0.10000 100 100 80-120 Silver 0.107 0.0000 0.0001 mg/L 0.10000 100 100 75-125 Silver 0.101 0.0000 0.0001 mg/L 0.10000 100 100 75-125 Silver 0.101 0.0000 0.0001 mg/L 0.10000 100 100 75-125 Silver 0.101 0.0000 0.0001 mg/L 0.10000 100 100 75-125 Silver 0.101 0.0000 0.0001 mg/L 0.10000 100 100 75-125 Silver 0.101 0.0000 0.0001 mg/L 0.10000 100 100 75-125 Silver 0.101 0.0000 0.0001 mg/L 0.10000 100 100 75-125 S	LCS (6100671-BS1)						Prepar	ed & Anal	/zed: 10/26	6/16		
Barluim 0,0971 0,0100 0,0004 mg/L 0,10000 1,03 80-120 Beryllium 0,103 0,0030 0,0004 mg/L 0,10000 1,03 80-120 Bornon 1,05 0,100 0,0004 mg/L 0,10000 1,03 80-120 Calcium 1,05 0,500 0,0011 mg/L 1,0000 1,03 80-120 Chorium 0,104 0,0100 0,0009 mg/L 0,10000 1,03 80-120 Chorium 0,104 0,0100 0,0005 mg/L 0,10000 1,03 80-120 Choper 0,101 0,0050 0,0001 mg/L 0,10000 1,01 80-120 Molybdenum 0,104 0,1010 0,0010 mg/L 0,10000 1,02 80-120 Sleenium 0,102 0,0010 0,0010 mg/L 0,10000 1,02 80-120 Slever 0,102 0,0010 0,0010 mg/L 0,10000 1,02 <td>Antimony</td> <td>0.107</td> <td>0.0030</td> <td>0.0008</td> <td>mg/L</td> <td>0.10000</td> <td></td> <td>107</td> <td>80-120</td> <td></td> <td></td> <td></td>	Antimony	0.107	0.0030	0.0008	mg/L	0.10000		107	80-120			
Beryllium 0.103 0.0030 0.00004 mg/L 0.10000 103 80-120 Boron 1.05 0.100 0.0004 mg/L 1.0000 105 80-120 Cadmium 0.103 0.0100 0.0004 mg/L 1.0000 105 80-120 Calcium 1.05 0.500 0.0311 mg/L 1.0000 104 80-120 Chromium 0.104 0.0100 0.0005 mg/L 0.10000 104 80-120 Copper 0.101 0.0050 0.0005 mg/L 0.10000 101 80-120 Copper 0.101 0.0050 0.0001 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.0001 mg/L 0.10000 104 80-120 Lead 0.102 0.0050 0.0006 mg/L 0.10000 104 80-120 Mackel 0.102 0.0050 0.0006 mg/L 0.10000 102 80-120 <td>Arsenic</td> <td>0.104</td> <td>0.0050</td> <td>0.0016</td> <td>mg/L</td> <td>0.10000</td> <td></td> <td>104</td> <td>80-120</td> <td></td> <td></td> <td></td>	Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Boron 1.05 0.100 0.0064 mg/L 1.0000 105 80-120 Cadmium 0.103 0.0010 0.00007 mg/L 0.10000 103 80-120 Calcium 1.05 0.500 0.03311 mg/L 0.10000 105 80-120 Chromium 0.104 0.0100 0.0005 mg/L 0.10000 104 80-120 Cobalt 0.103 0.0100 0.0005 mg/L 0.10000 103 80-120 Copper 0.101 0.0050 0.0001 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.0001 mg/L 0.10000 102 80-120 Nickel 0.102 0.0050 0.0008 mg/L 0.10000 102 80-120 Selenium 0.100 0.0100 0.0010 mg/L 0.10000 102 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-12	Barium	0.0971	0.0100	0.0004	mg/L	0.10000		97	80-120			
Cadinium 0.103 0.0010 0.00007 mg/L mg/L 0.10000 103 10000 80-120 Calcium 1.05 0.500 0.3311 mg/L 1.0000 104 80-120 Chornmium 0.104 0.0100 0.0005 mg/L 0.10000 104 80-120 Cobalt 0.103 0.0100 0.0005 mg/L 0.10000 101 80-120 Copper 0.101 0.0050 0.0001 mg/L 0.10000 101 80-120 Molybdenum 0.104 0.0100 0.0017 mg/L 0.10000 102 80-120 Nickel 0.102 0.0050 0.0006 mg/L 0.10000 102 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.0002 mg/L 0.10000 102 80-120 Zinc 0.108 0.0100 0.0021 mg/L 0.10000 <td< td=""><td>Beryllium</td><td>0.103</td><td>0.0030</td><td>0.00008</td><td>mg/L</td><td>0.10000</td><td></td><td>103</td><td>80-120</td><td></td><td></td><td></td></td<>	Beryllium	0.103	0.0030	0.00008	mg/L	0.10000		103	80-120			
Calcicium 1.05 0.500 0.3311 mg/L 1.0000 105 80-120 Chromium 0.104 0.0100 0.0009 mg/L 0.10000 104 80-120 Cobalt 0.103 0.0100 0.0005 mg/L 0.10000 103 80-120 Copper 0.101 0.0050 0.0005 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.0001 mg/L 0.10000 102 80-120 Molybdenum 0.104 0.0100 0.0017 mg/L 0.10000 104 80-120 Nikel 0.102 0.0050 0.0066 mg/L 0.10000 102 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Yanadium 0.102 0.0010 0.0021 mg/L 0.10000 102 80-120 Yanadium 0.102 0.0100 0.0021 mg/L 0.10000 107 <th< td=""><td>Boron</td><td>1.05</td><td>0.100</td><td>0.0064</td><td>mg/L</td><td>1.0000</td><td></td><td>105</td><td>80-120</td><td></td><td></td><td></td></th<>	Boron	1.05	0.100	0.0064	mg/L	1.0000		105	80-120			
Chromium 0.104 0.0100 0.0009 mg/L 0.10000 104 80-120 Cobalt 0.103 0.0100 0.0005 mg/L 0.10000 103 80-120 Copper 0.101 0.0050 0.0001 mg/L 0.10000 102 80-120 Lead 0.102 0.0050 0.0001 mg/L 0.10000 102 80-120 Molybdenum 0.104 0.0100 0.0017 mg/L 0.10000 104 80-120 Sleenium 0.102 0.0050 0.0006 mg/L 0.10000 102 80-120 Sliver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Sliver 0.102 0.0010 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.00021 mg/L 0.10000 103 80-120 Vanadium 0.103 0.0100 0.0021 mg/L 0.10000 100	Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Cobalt 0.103 0.0100 0.0005 mg/L 0.10000 103 80-120 Copper 0.101 0.0050 0.0005 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.0001 mg/L 0.10000 102 80-120 Molybdenum 0.104 0.0100 0.0017 mg/L 0.10000 104 80-120 Nickel 0.102 0.0050 0.0006 mg/L 0.10000 102 80-120 Selenium 0.100 0.0010 0.0005 mg/L 0.10000 102 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Thallium 0.102 0.0100 0.0001 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0021 mg/L 0.10000 102 80-120 Lithium 0.107 0.0500 0.0021 mg/L 0.10000 107	Calcium	1.05	0.500	0.0311	mg/L	1.0000		105	80-120			
Copper 0.101 0.0050 0.0005 mg/L 0.10000 101 80-120 Lead 0.102 0.0050 0.0001 mg/L 0.10000 102 80-120 Molybdenum 0.104 0.0100 0.0050 0.0006 mg/L 0.10000 102 80-120 Nikel 0.102 0.0050 0.0006 mg/L 0.10000 102 80-120 Selenium 0.100 0.0100 0.0010 mg/L 0.10000 102 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0021 mg/L 0.10000 102 80-120 Zinc 0.108 0.0100 0.0021 mg/L 0.10000 108 80-120 Matrix Spike (6100671-MS1) Source: AZJ0696-04 Prepared & Analyzed: 10/26/16 Matrix Spike (6100671-MS1) Source: AZJ0696-04 Prepared & Analyzed: 10/26/16	Chromium	0.104	0.0100	0.0009	mg/L	0.10000		104	80-120			
Lead 0.102 0.0050 0.0001 mg/L 0.10000 102 80-120 Molybdenum 0.104 0.0100 0.0017 mg/L 0.10000 104 80-120 Nickel 0.102 0.0050 0.0006 mg/L 0.10000 102 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.0005 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0021 mg/L 0.10000 102 80-120 Zinc 0.108 0.0100 0.0021 mg/L 0.10000 108 80-120 Lithium 0.107 0.0500 0.0021 mg/L 0.10000 107 80-120 Matrix Spike (6100671-MS1) Source: AZJ0696-04 Prepared & Analyzed: 10/26/16 Na 107 75-125 Arsenic 0.100 0.0050 0.0016 mg/L 0.10000 ND	Cobalt	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Molybdenum 0.104 0.0100 0.0017 mg/L 0.10000 104 80-120 Nickel 0.102 0.0050 0.0066 mg/L 0.10000 100 80-120 Selenium 0.100 0.0100 0.0010 mg/L 0.10000 100 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Thallium 0.102 0.0100 0.0021 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0021 mg/L 0.10000 102 80-120 Zinc 0.108 0.100 0.0021 mg/L 0.10000 108 80-120 Almimory 0.107 0.0030 0.0021 mg/L 0.10000 108 80-120 Arsenic 0.1007 0.0030 0.0081 mg/L 0.10000 ND 107 75-125 Arsenic 0.100 0.0030 0.0004 mg/L 0.10000	Copper	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Molybdenum 0.104 0.0100 0.0017 mg/L 0.10000 104 80-120 Nickel 0.102 0.0050 0.0066 mg/L 0.10000 102 80-120 Selenium 0.100 0.0100 0.0010 mg/L 0.10000 102 80-120 Silver 0.102 0.0050 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0100 0.0021 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0021 mg/L 0.10000 102 80-120 Zinc 0.108 0.0100 0.0021 mg/L 0.10000 102 80-120 Matrix Spike (6100671-MS1) 50utes - x2J0695c wg/L 0.10000 107 75-125 Arisenic 0.107 0.0030 0.0081 mg/L 0.10000 ND 107 75-125 Barium 0.0982 0.0100 0.0044 mg/L 0.10000 ND	Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Nickel 0.102 0.0050 0.0060 mg/L 0.10000 102 80-120 Selenium 0.100 0.0100 0.0010 mg/L 0.10000 100 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.0002 mg/L 0.10000 102 80-120 Thallium 0.102 0.0100 0.0071 mg/L 0.10000 102 80-120 Thallium 0.102 0.0100 0.0071 mg/L 0.10000 102 80-120 Thallium 0.102 0.0100 0.0071 mg/L 0.10000 102 80-120 Tinc 0.108 0.0100 0.0021 mg/L 0.10000 108 80-120 Tinc 0.108 0.0107 0.0500 0.0021 mg/L 0.10000 108 80-120 Tinc 0.108 0.0107 0.0500 0.0021 mg/L 0.10000 107 80-120 Thallium 0.107 0.0050 0.0081 mg/L 0.10000 ND 107 75-125 Thallium 0.100 0.0050 0.0008 mg/L 0.10000 ND 107 75-125 Thallium 0.0982 0.0100 0.0004 mg/L 0.10000 ND 100 75-125 The Barium 0.0982 0.0100 0.0004 mg/L 0.10000 ND 101 75-125 The Thallium 0.101 0.0030 0.0008 mg/L 0.10000 ND 101 75-125 The Thallium 0.101 0.0030 0.0008 mg/L 0.10000 ND 101 75-125 The Thallium 0.101 0.0010 0.00004 mg/L 0.10000 ND 101 75-125 The Thallium 0.101 0.0010 0.00004 mg/L 0.10000 ND 101 75-125 The Thallium 0.101 0.0010 0.00007 mg/L 0.10000 ND 101 75-125 The Thallium 0.104 0.0100 0.0005 mg/L 0.10000 ND 101 75-125 The Thallium 0.104 0.0100 0.0005 mg/L 0.10000 ND 101 75-125 The Thallium 0.101 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 The Thallium 0.101 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 The Thallium 0.0099 0.0050 0.0006 mg/L 0.10000 ND 101 75-125 The Thallium 0.0992 0.0100 0.0007 mg/L 0.10000 ND 101 75-125 Thallium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 102 75-125 Thallium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 102 75-125 Thallium 0.0994 0.0000 0.0001 mg/L 0.10000 ND 103 75-125 Thallium 0.00994 0.0000 0.0001 mg/L 0.10000 ND 103 75-125 Thallium 0.00994 0.0000 0.0001 mg/L 0.10000 ND 103 75-125 Thallium 0.00994 0.0000 0.0001 mg/L 0.10000 ND 103 75-125 Thallium 0.00994 0.0000 0.0001 mg/L 0.10000 ND 103 75-125 Thallium 0.00994 0.0000 0.0001 mg/L 0.10000 ND 103 75-125	Molybdenum	0.104	0.0100	0.0017	•	0.10000		104	80-120			
Selenium 0.100 0.0100 0.0010 mg/L 0.10000 100 80-120 Silver 0.102 0.0050 0.0005 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.0002 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0021 mg/L 0.10000 102 80-120 Zinc 0.108 0.0100 0.0021 mg/L 0.10000 108 80-120 Lithium 0.107 0.0500 0.0021 mg/L 0.10000 108 80-120 Source: AZJ0696-04 Prepared & Analyzed: 10/26/16 Antimony 0.107 0.0030 0.0008 mg/L 0.10000 ND 107 75-125 Arsenic 0.100 0.0050 0.0016 mg/L 0.10000 ND 100 75-125 Beryllium 0.101 0.0030 0.0008 mg/L 0.10000 ND 101 75-125	•	0.102	0.0050	0.0006	•	0.10000		102	80-120			
Silver 0.102 0.0050 0.0050 mg/L 0.10000 102 80-120 Thallium 0.102 0.0010 0.0002 mg/L 0.10000 102 80-120 Vanadium 0.102 0.0100 0.0021 mg/L 0.10000 102 80-120 Zinc 0.108 0.0100 0.0021 mg/L 0.10000 107 80-120 Lithium 0.107 0.0500 0.0021 mg/L 0.10000 107 80-120 Matrix Spike (6100671-MS1) Source: AZJ6696-04 Prepared & Analyzed: 10/26/16 Matrix Spike (6100671-MS1) Source: AZJ6696-04 Prepared & Analyzed: 10/26/16 Matrix Spike (6100671-MS1) Source: AZJ6696-04 Prepared & Analyzed: 10/26/16 Matrix Spike (6100671-MS1) Source: AZJ6696-04 Prepared & Analyzed: 10/26/16 Matrix Spike (6100671-MS1) Source: AZJ69696-04 Prepared & Analyzed: 10/26/16 Matrix Spike (6100671-MS1) Source: AZJ69696-04 <td></td> <td>0.100</td> <td>0.0100</td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>		0.100	0.0100		_							
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Vanadium 0.102 0.0100 0.0071 mg/L 0.10000 102 80-120 Zinc 0.108 0.0100 0.0021 mg/L 0.10000 108 80-120 Lithium 0.107 0.0500 0.0021 mg/L 0.10000 107 80-120 Matrix Spike (6100671-MS1) Source: AZJ0696-04 Prepared & Analyzed: 10/26/16 Antimony 0.107 0.0030 0.0008 mg/L 0.10000 ND 107 75-125 Arsenic 0.100 0.0050 0.0016 mg/L 0.10000 ND 100 75-125 Barium 0.0982 0.0100 0.0004 mg/L 0.10000 ND 100 75-125 Beryllium 0.101 0.0030 0.00008 mg/L 0.10000 ND 101 75-125 Boron 1.06 0.100 0.0064 mg/L 0.10000 ND 101 75-125 Cadmium 0.101 0.0010 0.0000		0.102	0.0010		-							
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Lithium 0.104 0.0500 0.0021 ma/L 0.10000 ND 104 75-125					_							
	Lithium	0.104	0.0500	0.0021	mg/L	0.10000	ND	104	75-125			



Georgia Power 2480 Maner Road

Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZJ0621

PACE ANALYTICAL SERVICES, INC.

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

October 28, 2016

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100671 - EPA 3005A											
Matrix Spike Dup (6100671-MSD1)		Sou	ırce: AZJ069	96-04							
Antimony	0.105	0.0030	0.0008	mg/L	0.10000	ND	105	75-125	3	20	
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125	2	20	
Barium	0.0959	0.0100	0.0004	mg/L	0.10000	ND	96	75-125	2	20	
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125	0.02	20	
Boron	1.04	0.100	0.0064	mg/L	1.0000	ND	104	75-125	2	20	
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	0.5	20	
Calcium	0.998	0.500	0.0311	mg/L	1.0000	ND	100	75-125	2	20	
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125	0.6	20	
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125	0.9	20	
Copper	0.0985	0.0050	0.0005	mg/L	0.10000	ND	98	75-125	2	20	
Lead	0.0995	0.0050	0.0001	mg/L	0.10000	ND	99	75-125	0.5	20	
Molybdenum	0.0977	0.0100	0.0017	mg/L	0.10000	ND	98	75-125	3	20	
Nickel	0.0994	0.0050	0.0006	mg/L	0.10000	ND	99	75-125	2	20	
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125	2	20	
Silver	0.0997	0.0050	0.0005	mg/L	0.10000	ND	100	75-125	2	20	
Thallium	0.100	0.0010	0.0002	mg/L	0.10000	ND	100	75-125	1	20	
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000	ND	105	75-125	2	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125	1	20	
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	ND	101	75-125	3	20	
Post Spike (6100671-PS1)		Sou	ırce: AZJ069	96-04		Prepar	ed & Anal	yzed: 10/2	6/16		
Antimony	96.0			ug/L	100.00	0.176	96	80-120			
Arsenic	103			ug/L	100.00	-0.164	104	80-120			
Barium	98.0			ug/L	100.00	-0.0089	98	80-120			
Beryllium	99.2			ug/L	100.00	0.0006	99	80-120			
Boron	1060			ug/L	1000.0	1.09	106	80-120			
Cadmium	103			ug/L	100.00	-0.0453	103	80-120			
Calcium	1050			ug/L	1000.0	10.9	103	80-120			
Chromium	105			ug/L	100.00	-0.0552	105	80-120			
Cobalt	101			ug/L	100.00	0.0039	101	80-120			
Copper	99.3			ug/L	100.00	0.0665	99	80-120			
Lead	99.0			ug/L	100.00	-0.0007	99	80-120			
Molybdenum	105			ug/L	100.00	0.0174	105	80-120			
Nickel	101			ug/L	100.00	0.0775	100	80-120			
Selenium	102			ug/L	100.00	-1.57	103	80-120			
Silver	102			ug/L	100.00	0.0072	102	80-120			
Thallium	99.9			ug/L	100.00	0.0064	100	80-120			
Vanadium	103			ug/L	100.00	-0.163	103	80-120			
Zinc	108			ug/L	100.00	0.823	107	80-120			
Lithium	105			ug/L	100.00	0.023	107	80-120			
Element	.00			ug/L	100.00	0.00-0	100	00-120			



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 28, 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.

NC	lo.	3,8°C	56°C	1, 56°C			ш	JICT									
PRESERVATION	1 - HCl. 98	2 - H ₂ SO ₄ , s6°C	4 - NaOH, 26°C 5 - NaOH/7nAc <6°C	5 - Na ₂ S ₂ O ₃ - 56°C	000000000000000000000000000000000000000	S.	SD- SOUD	P.									ORLAB USE ONLY
CONTAINER TYPE	P - PLASTIC	A - AMBER GLASS	V - VOA VIAL	O. OTHER		DRINKING	WW - WASTEWATER GW - GROUNDWATER SW - CHREACE WATER										Entered Into LIMS:
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ANALYSIS REQUESTED																	COURIER
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ANALY	a.	60					8 SM 2	EPA 300.0 Radium 226		-	-		-	-	+-		Sasu sasu
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	E TWO E	NOW				n a m	9 236	ned stetch	\vdash						\Box		RELINGUISHED BY: RELINGUISHED BY: SAMPLE SHIPPED VIA UPS. FED-EX
	CONTAMER TYPE	PRESERVATION	0	0 2	- 4	- z	ച മെ ഗ	→	9	ø	67	10	m	m			RELINGUISHED BY: RELINGUISHED BY: SAMPLE SHIPPED V UPS FED-EX
				Maria Padilla Heath McCorkie	# Inhumbility come come			SAMPLE IDENTIFICATION	HGWA-5	HGWA-6	HGWC-7	HGWC-B	HGWC-9	DuP-1			16 (148
		MBER		CC	PO #	Plant Hammond - AP 182	CCR	35									DATE/TIME TO/202016 DATE/TIME DATE/FIME
		FAX N				numona		00 Z C	×	×	*	×	×	×			
		NUMBER 10185		E	N DATE:	Plant He		MATRIX CODE*	GW	GW	GW	GW	N/S	GW			Tunger Tu
		SS/PHONE Blvd SE B	88	Joju Abraham	OMPLETIO	EISTATE		Collection	11:07	13,08	12:30	13:55	16.50	:			AS TWE
CLIENT NAME:	Georgia Power	CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Raioh McGill Blvd SE B10185	Atlanta, GA 30308 404-509-7239	REPORT TO:	REDUESTED COMPLETION DATE	PROJECT NAME/STATE	PROJECT #	Collection C DATE	10/20/16	10/20/16	10/20/16	10/20/16	10/20/16	10/20/16			SAMPLED BY AND TITLE A Sharedts AS T.Wardell 70. RECEIVED BY. RECEIVED BY. BB. + C.M. A.



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

LOG-IN CHECKLIST Printed: 10/28/2016 5:02:01PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR EventWork Order:AZJ0621Date Received:10/21/16 11:48Logged In By:Charles Hawks

OBSERVATIONS

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

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:

Greensburg, PA 15601 (724)850-5600



November 23, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30200228

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on October 24, 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

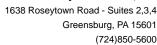
Sugnely allins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30200228

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

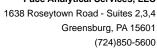
Rhode Island Certification #: 65-00282 South Dakota Certification

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

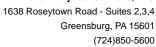




SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30200228

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30200228001	HGWA-5	Water	10/20/16 11:07	10/24/16 09:00
30200228002	HGWA-6	Water	10/20/16 13:08	10/24/16 09:00
30200228003	HGWC-7	Water	10/20/16 12:30	10/24/16 09:00
30200228004	HGWC-8	Water	10/20/16 13:55	10/24/16 09:00
30200228005	HGWC-9	Water	10/20/16 15:50	10/24/16 09:00
30200228006	Dup-1	Water	10/20/16 00:00	10/24/16 09:00





SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30200228

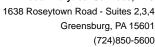
Lab ID	Sample ID	Method	Analysts	Analytes Reported
30200228001	HGWA-5	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30200228002	HGWA-6	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30200228003	HGWC-7	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30200228004	HGWC-8	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30200228005	HGWC-9	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30200228006	Dup-1	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30200228

Sample: HGWA-5	Lab ID: 3020022		Received:	10/24/16 09:00	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.136 ± 0.191 (0.599) C:81% T:NA	pCi/L	11/09/16 06:59	13982-63-3	
Radium-228	EPA 9320	0.351 ± 0.473 (0.970) C:78% T:82%	pCi/L	11/19/16 19:48	15262-20-1	
Total Radium	Total Radium Calculation	0.351 ± 0.664 (1.57)	pCi/L	11/21/16 16:24	7440-14-4	
Sample: HGWA-6	Lab ID: 3020022		Received:	10/24/16 09:00	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0608 ± 0.162 (0.395) C:87% T:NA	pCi/L	11/09/16 06:59	13982-63-3	
Radium-228	EPA 9320	0.603 ± 0.458 (0.883) C:80% T:82%	pCi/L	11/19/16 19:48	15262-20-1	
Total Radium	Total Radium Calculation	0.664 ± 0.620 (1.28)	pCi/L	11/21/16 16:24	7440-14-4	
Sample: HGWC-7 PWS:	Lab ID: 3020022 Site ID:	28003 Collected: 10/20/16 12:30 Sample Type:	Received:	10/24/16 09:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.139 ± 0.203 (0.443)	pCi/L	11/09/16 06:59	13982-63-3	
Radium-228	EPA 9320	C:86% T:NA 1.83 ± 0.691 (1.05)	pCi/L	11/19/16 19:48	3 15262-20-1	
Total Radium	Total Radium Calculation	C:68% T:73% 1.97 ± 0.894 (1.49)	pCi/L	11/21/16 16:24	7440-14-4	
Sample: HGWC-8 PWS:	Lab ID: 3020022 Site ID:	28004 Collected: 10/20/16 13:55 Sample Type:	Received:	10/24/16 09:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.235 ± 0.228 (0.448)	pCi/L	11/09/16 06:59	13982-63-3	
Radium-228	EPA 9320	C:97% T:NA 0.800 ± 0.451 (0.804)	pCi/L	11/19/16 19:48	15262-20-1	
Total Radium	Total Radium Calculation	C:74% T:84% 1.04 ± 0.679 (1.25)	pCi/L	11/21/16 16:24	7440-14-4	
Sample: HGWC-9 PWS:	Lab ID: 3020022 Site ID:	28005 Collected: 10/20/16 15:50 Sample Type:	Received:	10/24/16 09:00	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.360 ± 0.224 (0.325)	pCi/L	11/09/16 06:59		
Radium-228	EPA 9320	C:98% T:NA 0.805 ± 0.450 (0.797) C:70% T:85%	pCi/L	11/19/16 19:46		



11/21/16 16:24 7440-14-4



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30200228

Sample: HGWC-9 Lab ID: 30200228005 Collected: 10/20/16 15:50 Received: 10/24/16 09:00 Matrix: Water

PWS: Site ID: Sample Type:

Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual

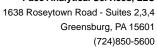
pCi/L

Total Radium Total Radium 1.17 ± 0.674 (1.12)
Calculation

Sample: Dup-1 Lab ID: 30200228006 Collected: 10/20/16 00:00 Received: 10/24/16 09:00 Matrix: Water

PWS: Site ID: Sample Type:

Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 $0.0571 \pm 0.208 \quad (0.511)$ Radium-226 pCi/L 11/09/16 06:59 13982-63-3 C:96% T:NA EPA 9320 Radium-228 2.64 ± 0.829 (1.06) pCi/L 11/19/16 19:46 15262-20-1 C:53% T:80% Total Radium Total Radium 2.70 ± 1.04 (1.57) pCi/L 11/21/16 16:24 7440-14-4 Calculation





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200228

QC Batch: 239218 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30200228001, 30200228002, 30200228003, 30200228004, 30200228005, 30200228006

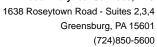
METHOD BLANK: 1175535 Matrix: Water

Associated Lab Samples: 30200228001, 30200228002, 30200228003, 30200228004, 30200228005, 30200228006

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 -0.0550 ± 0.118 (0.398) C:85% T:NA pCi/L 11/09/16 06:59

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





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200228

QC Batch: 239880 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30200228001, 30200228002, 30200228003, 30200228004, 30200228005, 30200228006

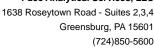
METHOD BLANK: 1178547 Matrix: Water

Associated Lab Samples: 30200228001, 30200228002, 30200228003, 30200228004, 30200228005, 30200228006

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.935 \pm 0.482 (0.855) C:73% T:95% pCi/L 11/19/16 19:47

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.





QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30200228

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

Date: 11/23/2016 04:54 PM

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

Results Requested By: 11/23/2016					LAB USE ONLY	3	8	83	00°4	ා දි	9 00 0					ents		
Results Requester Requester Requester Requester Requested Analysis																Comments	0900	
Owner Received Date:	lstoT	. '87	ZZ '	Preserved Containers n	HNO3	1 X	1 X	1 X 1	1 X X	1 X	1 X						10/24/16	
				Calcon	Matrix	AZJ0621-01 GW	AZJ0621-02 GW	AZJ0621-03 GW	AZJ0621-04 GW	AZJ0621-05 GW	AZ10621-06 GW					Reveived By	415 g Pace	
ler Name: Plant Hammond Subcontriact To:	Pace - Pittsburgh 1638 Roseytown Road	Stes. 2,3,4	Greensburg, PA 15601	Phone (724) 850-5600	Collect Date/Time Lab ID		10/20/2016.13:08 AZJ06	10/20/2016 12:30 AZJ06	10/20/2016 13:55 AZJ06	10/20/2016 15:50 AZJ06	10/20/2016 0:00 AZJ06					Date/Illime	(\$219//hd/a)	
Workorder Name:	Pac 163	Ste	Gre	Pho	Sample Sample Sample Sample Sample Same Same	G 10/20/20	G 10/20/20	G 10/20/20	G 10/20/20	G 10/20/20	G 10/20/20						L.	
Workorder: AZJ0621 Report To:	Betsy McDaniel Pace Analytical Atlanta	110 Technology Parkway	Peachtree Corners, GA 30092	Phone (770)-734-4200	tem Sample ID	HWGA-5	HGWA-6	HWGC-7	HWGC-8	HWGC-9	Dup-1				The state of the s	Transfers Released By	("A caster Hear	
Repor	Betsy Pace	1101	Peach	Phon	tem	г	2	3	4	5	9	7	8	6	10	Trans	7	m

***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.

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Intact () or N

Received on Ice Y or (N

Custody Seal Y or/N)

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4/2

Cooler Temperature on Receipt

3020000

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Pace Analytical Services, Inc. 110 TECHNOLOGY PARAWAY, PEACHTREE CORNERS, GA 30032

Pace Analytical

CHAIN OF CUSTODY RECORD

S. Modford Ser 7 - (4°C to) mann 1. H32. 3. H32. 3. H32. REFERENCE CONTROPAL PREDERVATION OF TOWN - LAUR %. %!... \$0. \$04.00 PERMANAMEN 24 A.W. TABILING GOTHES SAL SURFACE VALUE ST. STORIO LATER SC. WATER DREAKING WATCH SW. BROUNDWER P. PLASTIC A. AMBERGIASS G. CLEAR GLARS V. VIDANIAL S. STERRE O. DTHER MANAGER LANG OCKING T 1 69 * -J -K 20 - o z o z m w k ζ°F _ -. N E in L CTURER O STATES OF THE PARTY OF THE PA ANALYSIS KEOLESTED COLMER **.** STEER GREEN STAINS General Live & STE 15 (C D) (T . A. Care Transfer SOMETHS YOUR VAR el e ao' a loa ear essention HEL PROUSHED BY ŭ. VIAM EDA TESTASTEMON これの (1 を) を できます (単一人) と 草 OOZ-4-Zuco 275 17 <u> 1813</u> 13 Athreb@southernog com PACE DESCRIPTION OF THE PACE O Health Mecconsie HENDY & 10,90 8 Mara Pagla KINT S 学に対象 MCANO. OF W O. DATE TIME Part Hamsond . & F1182 * CLEAT ADDRESS PHONE ACMUENTAX NUMBER CCS 出立 本雄 ε¢ () (2) (2) (2) 2 4 () STATE ED BY AND TITLE
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20161020 Hammond AP 182 COC XFX

21.15

62 22

Sample Cond	dition Upon Recei	pt Pi	ttsbu	urgh							
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Courier: ☑ Fed Ex ☐	UPS USPS Client	Оα	omme	rcial	☐ Pace Othe	er					
Tracking #: 6812	5049 4741 Ves	 ⊠ n	ın	Seals	intact: Dyg	es 🔲 no	0				
	r/Box Present: ☐ yes IJ/A	_		10/-4	Blue Klone) .					
Thermometer Used	Observed Temp N/	iype α /∧	° C	Corre	ction Factor:	N/A .	C Fi	nal Temp	o: 10//	. c	:
Cooler Temperature	Observed temp	<u>/1</u>		00110		·					
Temp should be above free:	Zing to 0 0						Date a	and Initials tents:	s of person RTB	10/24	9 /16
Comments:		Yes	No	N/A							
Chain of Custody Preser	nt:	X			1						
Chain of Custody Filled (Х			2						
Chain of Custody Reling		×			3 /						/
Sampler Name & Signate			.,,		4. 1		- <u>/ </u>	June	KL_	p. y	
Sample Labels match Co		Х			5.00 /	1-n-c		12	1,,		
-Includes date/time/ID		\	T_					/ 3/			
Samples Arrived within I		*			6.						
Short Hold Time Analy			У		7				<u> </u>		
Rush Turn Around Tim			×		8.						
Sufficient Volume:		X			9.						
Correct Containers Used	d:	Х	<u></u>		10.						
-Pace Containers Us			X	_				·			
Containers Intact:		X			11.						
Filtered volume received	for Dissolved tests			×	12.		··				
All containers needing preser	rvation have been checked.	×			13. pH	12					
All containers needing pres compliance with EPA recor	servation are found to be in mendation.	×			'						
1							Date/time preservat				
exceptions: VOA, colifo	orm, TOC, O&G, Phenolics				Lot # of added	<u> </u>		-			
		т -		T 5	preservative						
Headspace in VOA Vial	s (>6mm):		 	X	14.						
Trip Blank Present:			<u> </u>	X	15.						
Trip Blank Custody Sea	Is Present	<u> </u>	ļ	X	Initial when			10/24/1			
Rad Aqueous Samples	S Screened > 0.5 mrem/hr		×		completed: R	4118 I	Date:	10 LT/1			
Client Notification/ Re	solution:								D		
Person Contacte	d:				/Time:		C	ontacted	в <u>у:</u>		
Comments/ Resolution	n:										

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)

Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

The review is in the Status section of the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section.

Certification Office (i.e. out or noid, incorrect preservative, out or 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.	
	0,000
	÷400

Pace Analytical

11/16/2016 Ka-228 JLW 32405 Test: Analyst: Date: Worklist: Matrix:

Sample Matrix Spike Control Assessment

1178547 0.935 0.452 0.855 4.05 N/A MB Sample ID MB concentration: MB MDC: MB Numerical Performance Indicator: M/B Counting Uncertainty: MB Status vs Numerical Indicator MB Status vs. MDC Method Blank Assessment

MS Target Conc. (p.Ci., g, F):
MS Target Conc. (p.Ci/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (p.Ci/L, g, F):

Sample Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Result

Sample Matrix Spike Duplicate Result

Spike uncertainty (calculated):

Sample Result:

Matrix Spike Duplicate Result Counting Uncertainty (pCif., g. F):

MS Numerical Performance Indicator:

MS Percent Recovery: MSD Percent Recovery:

MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery:

MSD Status vs Recovery

MSD Numerical Performance Indicator:

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):

z	LCSD32405											
LCSD (Y or N)?	LCS32405	11/19/2016	16-027	26.037	0.20	0.807	6.450	0.464	7.929	0.807	3.11	122.93%
Laboratory Control Sample Assessment		Count Date:	Spike I.D.:	Spike Concentration (pCi/mL):	Volume Used (mL):	Aliquot Volume (L, g, F):	Target Conc. (pCi/L, g, F):	Uncertainty (Calculated):	Result (pCi/L, g, F):	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	Numerical Performance Indicator:	Percent Recovery:

A/A	Pass	
Status vs Numerical Indicator:	Status vs Recovery:	Duplicate Sample Assessment

Matrix Spike/Matrix Spike Duplicate Sample Assessment	Enter Duplicate Sample I.D.	sample IDs if Sample MS I.D.	other than Sample MSD I.D.	LCS/LCSD in Sample Matrix Spike Result:	the space below. Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Duplicate Result:	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	30200256001 Duplicate Numerical Performance Indicator:	90200226001DUP (Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	MS/ MSD Duplicate Status vs Numerical Indicator:	MASCARSON Objects Options of DDD.
	Enter Du	sample	othert	LCS/LC	the space			30202	30200226(

0.544 0.294 0.439

Sample Result (pCi/L, g. F):
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):
Are sample and/or duplicate results below MDC?

See Balow## 1.996

409 604

Duplicate RPD

Duplicate Numerical Performance Indicator

N/A Figil

Duplicate Status vs Numerical Indicator;

Duplicate Status vs RPD:

30200226001DUP

30200226001

Sample I.D.: Duplicate Sample I.D. ## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

"The method blank result is below the reporting limit for this analysis and is acceptable." New Mondow Call AM ***Batch must <u>be re-prepred due to unacceptable precision.</u>

to organia when results Esta 24

S 8 200

Ra-228 NELAC DW2 Printed: 11/23/2016 3:25 PM

1 of 1

Quality Control Sample Performance Assessment

11/3/2016 32222 DW Test: Analyst: Date:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment 0.031 0.050 0.101 1.20 N/A Pass Worklist: Matrix: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC: MB Sample ID M/B Counting Uncertainty: MB MDC

Method Blank Assessment

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

	Japan San Din
Laboratory Control Sample Assessment LCSD (Y or N)?	Spike uncertainty (calcula
LCS32222 LCSD32222	
Count Date: 11/5/2016	Sample Result Counting Uncertainty (pCi/L.
Spike I.D.; 16-026	Sample Matrix Spike R
	Matrix Spike Result Counting Uncertainty (pCi/L,
Volume Used (mL):	Sample Matrix Spike Duplicate R
	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L.
Target Conc. (pOl/L, g, F): 8.914	MS Numerical Performance India
Uncertainty (Calculated); 0.419	MSD Numerical Performance India
Result (pCi/L, g, F): 8.283	MS Percent Reco
	MSD Percent Reco
Numerical Performance Indicator: -1.38	MS Status vs Numerical Indic
Percent Recovery: 92.92%	MSD Status vs Numerical India
Status vs Numerical Indicator: N/A	MS Status vs Reco
Status vs Recovery: Pass	MSD Status vs Reco
Duplicate Sample Assessment	Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.: 30200041003 Enter Duplicate	licate Sample
Duplicate Sample I.D. 3C200041003DUP sample IDs if	Sar
Sample Result (pCl/L, g, F): 0.058 other than	an Sample MSI
Sample Result Counting Uncertainty (pCi/L, g, F): 0.063 LCS/LCSD in the	in the Sample Matrix Spike R
Sample Duplicate Result (PCifL, g, F): 0.490 space below.	low. Matrix Spike Result Counting Uncertainty (pCi/L,
Sample Duplicate Result Counting Uncertainty (pCt/L, g, F): -6.258	Sample Matrix Spike Duplicate R
Are sample and/or duplicate results below MDC? See Below ##	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L.

JON > ## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC. ろうえな

N/A Fail**

Duplicate Status vs RPD:

Duplicate Numerical Performance Indicator.

Duplicate RPD: Duplicate Status vs Numerical Indicator; "Batch must be re-prepped due to unacceptable precision $\int M M / (23) (\zeta)$

Comments:

TAR DW QC Printed: 11/23/2016 3:28 PM



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: AZJ0696

November 04, 2016

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, Inc.

All test results relate only to the samples analyzed.



Attention: Mr. Joju Abraham

PACE ANALYTICAL SERVICES, INC.

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

November 04, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-10	AZJ0696-01	Ground Water	10/24/16 13:05	10/25/16 14:10
HGWC-13	AZJ0696-02	Ground Water	10/24/16 14:45	10/25/16 14:10
FB-1	AZJ0696-03	Water	10/24/16 16:30	10/25/16 14:10
FERB-1	AZJ0696-04	Water	10/24/16 16:35	10/25/16 14:10
HGWC-14	AZJ0696-05	Ground Water	10/24/16 16:10	10/25/16 14:10
HGWC-11	AZJ0696-06	Ground Water	10/24/16 13:15	10/25/16 14:10
HGWC-12	AZJ0696-07	Ground Water	10/24/16 14:45	10/25/16 14:10
HGWC-15	AZJ0696-08	Ground Water	10/24/16 16:27	10/25/16 14:10



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

Report No.: AZJ0696 Client ID: HGWC-10

Date/Time Sampled: 10/24/2016 1:05:00PM

Matrix: Ground Water

November 04, 2016

Project: CCR Event
Lab Number ID: AZJ0696-01

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	643	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	99	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 10:33	6100701	RNB
Fluoride	0.06	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 01:36	6100701	RNB
Sulfate	190	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 10:33	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Barium	0.101	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Boron	0.831	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Calcium	156	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 14:47	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:37	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:40	6100740	MTC



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

Report No.: AZJ0696
Client ID: HGWC-13

Date/Time Sampled: 10/24/2016 2:45:00PM

Matrix: Ground Water

November 04, 2016

Project: CCR Event
Lab Number ID: AZJ0696-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	647	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	140	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 10:54	6100701	RNB
Fluoride	0.31	0.30	0.02	mg/L	EPA 300.0		1	10/26/16 15:29	10/27/16 02:38	6100701	RNB
Sulfate	180	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 10:54	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Arsenic	0.334	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Barium	0.0882	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Beryllium	ND	0.0030	80000.0	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Boron	4.01	1.00	0.0642	mg/L	EPA 6020B		10	10/26/16 09:00	10/27/16 14:53	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Calcium	127	25.0	1.55	mg/L	EPA 6020B		50	10/26/16 09:00	10/27/16 14:58	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Cobalt	0.0040	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Molybdenum	0.0352	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Thallium	0.0005	0.0010	0.0002	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Lithium	0.0435	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/26/16 09:00	10/26/16 14:57	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:42	6100740	MTC



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

Report No.: AZJ0696 Client ID: FB-1

Date/Time Sampled: 10/24/2016 4:30:00PM

Matrix: Water

November 04, 2016

Project: CCR Event

Lab Number ID: AZJ0696-03

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	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	12	0.25	0.01	mg/L	EPA 300.0		1	10/26/16 15:29	10/27/16 02:58	6100701	RNB
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 02:58	6100701	RNB
Sulfate	14	1.0	0.05	mg/L	EPA 300.0		1	10/26/16 15:29	10/27/16 02:58	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:54	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:45	6100740	MTC



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

Report No.: AZJ0696
Client ID: FERB-1

Date/Time Sampled: 10/24/2016 4:35:00PM

Matrix: Water

November 04, 2016

Project: CCR Event
Lab Number ID: AZJ0696-04

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	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	10/26/16 15:29	11/02/16 21:29	6100701	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	10/26/16 15:29	11/02/16 21:29	6100701	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	10/26/16 15:29	11/02/16 21:29	6100701	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/26/16 09:00	10/26/16 15:59	6100671	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:47	6100740	MTC



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

Report No.: AZJ0696 Client ID: HGWC-14

Date/Time Sampled: 10/24/2016 4:10:00PM

Matrix: Ground Water

November 04, 2016

Project: CCR Event
Lab Number ID: AZJ0696-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	2920	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 13:19	6100701	RNB
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 03:39	6100701	RNB
Sulfate	280	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 13:19	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Arsenic	0.0058	0.0050	0.0016	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Barium	0.0208	0.0100	0.0004	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Beryllium	0.0005	0.0030	0.0004	mg/L	EPA 6020B	J	5	10/27/16 14:30	11/01/16 13:39	6100710	CSW
Boron	13.7	0.500	0.0321	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:39	6100710	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Calcium	564	50.0	3.11	mg/L	EPA 6020B		100	10/27/16 14:30	11/01/16 17:42	6100710	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Cobalt	0.0253	0.0100	0.0005	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Lead	0.0016	0.0050	0.0001	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Selenium	0.0135	0.0100	0.0010	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:00	6100710	CSW
Lithium	ND	0.0500	0.0103	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:39	6100710	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:49	6100740	MTC



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

Report No.: AZJ0696
Client ID: HGWC-11

Date/Time Sampled: 10/24/2016 1:15:00PM

Matrix: Ground Water

November 04, 2016

Project: CCR Event
Lab Number ID: AZJ0696-06

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	836	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	220	6.2	0.35	mg/L	EPA 300.0		25	10/26/16 15:29	11/01/16 11:35	6100701	RNB
Fluoride	0.26	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 04:00	6100701	RNB
Sulfate	370	25	1.3	mg/L	EPA 300.0		25	10/26/16 15:29	11/01/16 11:35	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Barium	0.0794	0.0100	0.0004	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Beryllium	ND	0.0030	0.0004	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:47	6100710	CSW
Boron	2.54	0.500	0.0321	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:47	6100710	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Calcium	145	25.0	1.55	mg/L	EPA 6020B		50	10/27/16 14:30	11/01/16 17:48	6100710	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Cobalt	0.0032	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Molybdenum	0.0293	0.0100	0.0017	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Selenium	0.0021	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:05	6100710	CSW
Lithium	ND	0.0500	0.0103	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:47	6100710	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:57	6100740	MTC



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

Report No.: AZJ0696
Client ID: HGWC-12

Date/Time Sampled: 10/24/2016 2:45:00PM

Matrix: Ground Water

November 04, 2016

Project: CCR Event
Lab Number ID: AZJ0696-07

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	868	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	160	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 11:56	6100701	RNB
Fluoride	0.19	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 04:21	6100701	RNB
Sulfate	270	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 11:56	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Arsenic	0.0049	0.0050	0.0016	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Barium	0.135	0.0100	0.0004	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Beryllium	ND	0.0030	0.0004	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:54	6100710	CSW
Boron	2.75	0.500	0.0321	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 13:54	6100710	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Calcium	193	25.0	1.55	mg/L	EPA 6020B		50	10/27/16 14:30	11/01/16 17:53	6100710	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Cobalt	0.0017	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Molybdenum	0.0470	0.0100	0.0017	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:11	6100710	CSW
Lithium	0.0114	0.0500	0.0103	mg/L	EPA 6020B	J	5	10/27/16 14:30	11/01/16 13:54	6100710	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 12:59	6100740	MTC



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

Report No.: AZJ0696 Client ID: HGWC-15

Date/Time Sampled: 10/24/2016 4:27:00PM

Matrix: Ground Water

November 04, 2016

Project: CCR Event
Lab Number ID: AZJ0696-08

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1090	25	10	mg/L	SM 2540 C		1	10/31/16 19:05	10/31/16 19:05	6100829	JPT
Inorganic Anions											
Chloride	200	2.5	0.14	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 12:16	6100701	RNB
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	10/26/16 15:29	10/27/16 04:41	6100701	RNB
Sulfate	420	10	0.51	mg/L	EPA 300.0		10	10/26/16 15:29	11/01/16 12:16	6100701	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Barium	0.0326	0.0100	0.0004	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Beryllium	ND	0.0030	0.0004	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 14:01	6100710	CSW
Boron	1.93	0.100	0.0064	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Cadmium	0.0018	0.0010	0.00007	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Calcium	200	25.0	1.55	mg/L	EPA 6020B		50	10/27/16 14:30	11/01/16 17:59	6100710	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Cobalt	0.0557	0.0100	0.0005	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Selenium	0.0012	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/27/16 14:30	10/29/16 01:17	6100710	CSW
Lithium	ND	0.0500	0.0103	mg/L	EPA 6020B		5	10/27/16 14:30	11/01/16 14:01	6100710	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 13:01	6100740	MTC



Attention: Mr. Joju Abraham

Report No.: AZJ0696

PACE ANALYTICAL SERVICES, INC.

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

November 04, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100829 - SM 2540 C											
Blank (6100829-BLK1)						Prepare	ed & Anal	yzed: 10/3	1/16		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6100829-BS1)						Prepare	ed & Anal	yzed: 10/3	1/16		
Total Dissolved Solids	377	25	10	mg/L	400.00		94	84-108			
Duplicate (6100829-DUP1)		Sou	ırce: AZJ06	96-02RE1		Prepare	ed & Anal	yzed: 10/3	1/16		
Total Dissolved Solids	674	25	10	mg/L		647			4	10	
Duplicate (6100829-DUP2)		Sou	ırce: AZJ07	00-01RE1		Prepare	ed & Anal	yzed: 10/3	1/16		
Total Dissolved Solids	141	25	10	mg/L		136			4	10	



Attention: Mr. Joju Abraham

Report No.: AZJ0696

PACE ANALYTICAL SERVICES, INC.

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

November 04, 2016

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100701 - EPA 300.0											
Blank (6100701-BLK1)						Prepare	ed: 10/26/	/16 Analyz	ed: 10/27	/16	
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6100701-BS1)						Prepare	ed: 10/26/	/16 Analyz	ed: 10/27	/16	
Chloride	10.9	0.25	0.01	mg/L	10.010		108	90-110			
Fluoride	10.9	0.30	0.02	mg/L	10.020		108	90-110			
Sulfate	10.8	1.0	0.05	mg/L	10.020		108	90-110			
Duplicate (6100701-DUP1)		Sou	ırce: AZJ07	01-03RE1		Prepare	ed: 10/26/	/16 Analyz	ed: 11/02	/16	
Chloride	ND	1.0	1.0	mg/L		ND				15	
Fluoride	ND	0.10	0.10	mg/L		ND				15	
Sulfate	ND	5.0	5.0	mg/L		ND				15	
Duplicate (6100701-DUP2)		Sou	ırce: AZJ06	96-04RE1		Prepare	ed: 10/26/	/16 Analyz	ed: 11/02	/16	
Chloride	ND	1.0	1.0	mg/L		ND.				15	
Fluoride	ND	0.10	0.10	mg/L		ND				15	
Sulfate	ND	5.0	5.0	mg/L		ND				15	
Matrix Spike (6100701-MS1)		Sou	urce: AZJ06	96-01		Prepare	ed: 10/26/	/16 Analyz	ed: 10/27	/16	
Chloride	84.1	0.25	0.01	mg/L	10.010	83.3	7	90-110			QM-02
Fluoride	8.55	0.30	0.02	mg/L	10.020	0.06	85	90-110			QM-05
Sulfate	147	1.0	0.05	mg/L	10.020	151	NR	90-110			QM-02
Matrix Spike (6100701-MS2)		Sou	urce: AZJ06	97-03		Prepare	ed: 10/26/	/16 Analyz	ed: 10/27	/16	
Chloride	14.6	0.25	0.01	mg/L	10.010	5.18	94	90-110			
Fluoride	10.0	0.30	0.02	mg/L	10.020	0.13	99	90-110			
Sulfate	196	1.0	0.05	mg/L	10.020	194	18	90-110			QM-02



Attention: Mr. Joju Abraham November 04, 2016

Attention: Mr. Joju Abraham

Report No.: AZJ0696

Inorganic Anions - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100701 - EPA 300.0											
Matrix Spike Dup (6100701-MSD1)		Sou	ırce: AZJ06	96-01		Prepar	ed: 10/26	6/16 Analyzed: 10/27/16			
Chloride	84.2	0.25	0.01	mg/L	10.010	83.3	9	90-110	0.2	15	QM-02
Fluoride	9.63	0.30	0.02	mg/L	10.020	0.06	96	90-110	12	15	
Sulfate	146	1.0	0.05	ma/L	10.020	151	NR	90-110	0.3	15	QM-02



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 04, 2016

Report No.: AZJ0696

					Spike	Source		%REC		RPD	
Analyte	Result	RL	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6100671 - EPA 3005A											
Blank (6100671-BLK1)						Prepare	ed & Analy	/zed: 10/2	6/16		
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							
				9. =							
LCS (6100671-BS1)	0.407	2 2222	0.0000			Prepare		/zed: 10/2	6/16		
Antimony	0.107	0.0030	0.0008	mg/L	0.10000		107	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.0971	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.103	0.0030	0.00008	mg/L	0.10000		103	80-120			
Boron	1.05	0.100	0.0064	mg/L	1.0000		105	80-120			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Calcium	1.05	0.500	0.0311	mg/L	1.0000		105	80-120			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000		104	80-120			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Copper	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000		104	80-120			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000		102	80-120			
Selenium	0.100	0.0100	0.0010	mg/L	0.10000		100	80-120			
Silver	0.102	0.0050	0.0005	mg/L	0.10000		102	80-120			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000		102	80-120			
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000		102	80-120			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000		108	80-120			
Lithium	0.107	0.0500	0.0021	mg/L	0.10000		107	80-120			



Georgia Power 2480 Maner Road

Atlanta GA, 30339

Environmental Monitoring & Laboratory Analysis

PACE ANALYTICAL SERVICES, INC.

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

Spike

Source

%REC

RPD

Attention: Mr. Joju Abraham November 04, 2016

Report No.: AZJ0696

Analyte	Result	RL	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6100671 - EPA 3005A											
Matrix Spike (6100671-MS1)		Sou	ırce: AZJ069	6-04		Prepare	ed & Analy	zed: 10/26	6/16		
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	ND	107	75-125			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000	ND	100	75-125			
Barium	0.0982	0.0100	0.0004	mg/L	0.10000	ND	98	75-125			
Beryllium	0.101	0.0030	80000.0	mg/L	0.10000	ND	101	75-125			
Boron	1.06	0.100	0.0064	mg/L	1.0000	ND	106	75-125			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	1.02	0.500	0.0311	mg/L	1.0000	ND	102	75-125			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.101	0.0050	0.0005	mg/L	0.10000	ND	101	75-125			
Lead	0.0990	0.0050	0.0001	mg/L	0.10000	ND	99	75-125			
Molybdenum	0.101	0.0100	0.0017	mg/L	0.10000	ND	101	75-125			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000	ND	102	75-125			
Selenium	0.0992	0.0100	0.0010	mg/L	0.10000	ND	99	75-125			
Silver	0.102	0.0050	0.0005	mg/L	0.10000	ND	102	75-125			
Thallium	0.0994	0.0010	0.0002	mg/L	0.10000	ND	99	75-125			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	ND	106	75-125			
Lithium	0.104	0.0500	0.0021	mg/L	0.10000	ND	104	75-125			
Matrix Spike Dup (6100671-MSD1)		Sou	ırce: AZJ069	6-04		Prepare	ed & Analy	zed: 10/26	6/16		
Antimony	0.105	0.0030	0.0008	mg/L	0.10000	ND	105	75-125	3	20	
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125	2	20	
Barium	0.0959	0.0100	0.0004	mg/L	0.10000	ND	96	75-125	2	20	
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125	0.02	20	
Boron	1.04	0.100	0.0064	mg/L	1.0000	ND	104	75-125	2	20	
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	0.5	20	
Calcium	0.000							75 105	2	20	
Chromium	0.998	0.500	0.0311	mg/L	1.0000	ND	100	75-125	_		
Cobalt	0.998 0.104	0.500 0.0100	0.0311 0.0009	mg/L mg/L	1.0000 0.10000	ND ND	100 104	75-125 75-125	0.6	20	
Copper				•							
Lead	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125	0.6	20	
	0.104 0.101	0.0100 0.0100	0.0009 0.0005	mg/L mg/L	0.10000 0.10000	ND ND	104 101	75-125 75-125	0.6 0.9	20 20	
Molybdenum	0.104 0.101 0.0985	0.0100 0.0100 0.0050	0.0009 0.0005 0.0005	mg/L mg/L mg/L	0.10000 0.10000 0.10000	ND ND ND	104 101 98	75-125 75-125 75-125	0.6 0.9 2	20 20 20	
Molybdenum Nickel	0.104 0.101 0.0985 0.0995	0.0100 0.0100 0.0050 0.0050	0.0009 0.0005 0.0005 0.0001	mg/L mg/L mg/L mg/L	0.10000 0.10000 0.10000 0.10000	ND ND ND ND	104 101 98 99	75-125 75-125 75-125 75-125	0.6 0.9 2 0.5	20 20 20 20	
•	0.104 0.101 0.0985 0.0995 0.0977	0.0100 0.0100 0.0050 0.0050 0.0100	0.0009 0.0005 0.0005 0.0001 0.0017	mg/L mg/L mg/L mg/L mg/L	0.10000 0.10000 0.10000 0.10000 0.10000	ND ND ND ND	104 101 98 99 98	75-125 75-125 75-125 75-125 75-125	0.6 0.9 2 0.5 3	20 20 20 20 20	
Nickel	0.104 0.101 0.0985 0.0995 0.0977 0.0994	0.0100 0.0100 0.0050 0.0050 0.0100 0.0050	0.0009 0.0005 0.0005 0.0001 0.0017 0.0006	mg/L mg/L mg/L mg/L mg/L	0.10000 0.10000 0.10000 0.10000 0.10000 0.10000	ND ND ND ND ND	104 101 98 99 98	75-125 75-125 75-125 75-125 75-125 75-125	0.6 0.9 2 0.5 3	20 20 20 20 20 20	
Nickel Selenium	0.104 0.101 0.0985 0.0995 0.0977 0.0994 0.101	0.0100 0.0100 0.0050 0.0050 0.0100 0.0050 0.0100	0.0009 0.0005 0.0005 0.0001 0.0017 0.0006 0.0010	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.10000 0.10000 0.10000 0.10000 0.10000 0.10000	ND ND ND ND ND ND ND	104 101 98 99 98 99	75-125 75-125 75-125 75-125 75-125 75-125 75-125	0.6 0.9 2 0.5 3 2	20 20 20 20 20 20 20 20	
Nickel Selenium Silver	0.104 0.101 0.0985 0.0995 0.0977 0.0994 0.101 0.0997	0.0100 0.0100 0.0050 0.0050 0.0100 0.0050 0.0100 0.0050	0.0009 0.0005 0.0005 0.0001 0.0017 0.0006 0.0010 0.0005	mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.10000 0.10000 0.10000 0.10000 0.10000 0.10000 0.10000	ND ND ND ND ND ND ND ND ND	104 101 98 99 98 99 101 100	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	0.6 0.9 2 0.5 3 2 2	20 20 20 20 20 20 20 20 20	
Nickel Selenium Silver Thallium	0.104 0.101 0.0985 0.0995 0.0977 0.0994 0.101 0.0997	0.0100 0.0100 0.0050 0.0050 0.0100 0.0050 0.0100 0.0050 0.0010	0.0009 0.0005 0.0005 0.0001 0.0017 0.0006 0.0010 0.0005 0.0002	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	0.10000 0.10000 0.10000 0.10000 0.10000 0.10000 0.10000 0.10000	ND	104 101 98 99 98 99 101 100	75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125 75-125	0.6 0.9 2 0.5 3 2 2 2	20 20 20 20 20 20 20 20 20 20	



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 04, 2016

Report No.: AZJ0696

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100671 - EPA 3005A											
Post Spike (6100671-PS1)		Soi	urce: AZJ06	96-04		Prepare	ed & Analy	yzed: 10/26	6/16		
Antimony	96.0			ug/L	100.00	0.176	96	80-120			
Arsenic	103			ug/L	100.00	-0.164	104	80-120			
Barium	98.0			ug/L	100.00	-0.0089	98	80-120			
Beryllium	99.2			ug/L	100.00	0.0006	99	80-120			
Boron	1060			ug/L	1000.0	1.09	106	80-120			
Cadmium	103			ug/L	100.00	-0.0453	103	80-120			
Calcium	1050			ug/L	1000.0	10.9	103	80-120			
Chromium	105			ug/L	100.00	-0.0552	105	80-120			
Cobalt	101			ug/L	100.00	0.0039	101	80-120			
Copper	99.3			ug/L	100.00	0.0665	99	80-120			
Lead	99.0			ug/L	100.00	-0.0007	99	80-120			
Molybdenum	105			ug/L	100.00	0.0174	105	80-120			
Nickel	101			ug/L	100.00	0.0775	100	80-120			
Selenium	102			ug/L	100.00	-1.57	103	80-120			
Silver	102			ug/L	100.00	0.0072	102	80-120			
Thallium	99.9			ug/L	100.00	0.0064	100	80-120			
Vanadium	103			ug/L	100.00	-0.163	103	80-120			
Zinc	108			ug/L	100.00	0.823	107	80-120			
Lithium	105			ug/L	100.00	0.0048	105	80-120			
Batch 6100710 - EPA 3005A											
Blank (6100710-BLK1)						Prepare	ed: 10/27/	16 Analyz	ed: 10/29	/16	
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							



Georgia Power 2480 Maner Road

Report No.: AZJ0696

Atlanta GA, 30339
Attention: Mr. Joju Abraham

PACE ANALYTICAL SERVICES, INC.

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

November 04, 2016

Batch 6100710 - EPA 3005A								Limits			Notes
Blank (6100710-BLK1)						Prepare	ed: 10/27/	16 Analyz	ed: 10/29/	16	
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6100710-BS1)						Prepare	ed: 10/27/	16 Analyz	ed: 10/29/	16	
Antimony	0.110	0.0030	0.0008	mg/L	0.10000		110	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.102	0.0100	0.0004	mg/L	0.10000		102	80-120			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000		101	80-120			
Boron	1.08	0.100	0.0064	mg/L	1.0000		108	80-120			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000		105	80-120			
Calcium	1.08	0.500	0.0311	mg/L	1.0000		108	80-120			
Chromium	0.108	0.0100	0.0009	mg/L	0.10000		108	80-120			
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Copper	0.100	0.0050	0.0005	mg/L	0.10000		100	80-120			
Lead	0.101	0.0050	0.0001	mg/L	0.10000		101	80-120			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000		109	80-120			
Nickel	0.101	0.0050	0.0006	mg/L	0.10000		101	80-120			
Selenium	0.113	0.0100	0.0010	mg/L	0.10000		113	80-120			
Silver	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.101	0.0010	0.0002	mg/L	0.10000		101	80-120			
Vanadium	0.108	0.0100	0.0071	mg/L	0.10000		108	80-120			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000		106	80-120			
Lithium	0.108	0.0500	0.0021	mg/L	0.10000		108	80-120			
Matrix Spike (6100710-MS1)		Sou	ırce: AZJ069	96-05		Prepare	ed: 10/27/	16 Analyz	ed: 10/29/	16	
Antimony	0.113	0.0030	0.0008	mg/L	0.10000	ND.	113	75-125			
Arsenic	0.118	0.0050	0.0016	mg/L	0.10000	0.0058	112	75-125			
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0208	105	75-125			
Beryllium	0.0942	0.0150	0.0004	mg/L	0.10000	0.0005	94	75-125			
Boron	15.6	0.500	0.0321	mg/L	1.0000	13.7	199	75-125			QM-02
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	0.0002	101	75-125			
Calcium	574	50.0	3.11	mg/L	1.0000	564	953	75-125			QM-02
Chromium	0.109	0.0100	0.0009	mg/L	0.10000	ND	109	75-125			
Cobalt	0.129	0.0100	0.0005	mg/L	0.10000	0.0253	103	75-125			
Copper	0.0950	0.0050	0.0005	mg/L	0.10000	ND	95	75-125			
Lead	0.0922	0.0050	0.0001	mg/L	0.10000	0.0016	91	75-125			
Molybdenum	0.112	0.0100	0.0017	mg/L	0.10000	ND	112	75-125			
Nickel	0.105	0.0050	0.0006	mg/L	0.10000	0.0063	98	75-125			
Selenium	0.130	0.0100	0.0010	mg/L	0.10000	0.0135	116	75-125			
Silver	0.0937	0.0100	0.0005	mg/L	0.10000	ND	94	75-125			



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 04, 2016

Report No.: AZJ0696

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100710 - EPA 3005A											
Matrix Spike (6100710-MS1)		Sou	ırce: AZJ069	96-05		Prepare	ed: 10/27/	16 Analyz	ed: 10/29	/16	
Thallium	0.0937	0.0010	0.0002	mg/L	0.10000	0.0004	93	75-125			
Vanadium	0.113	0.0100	0.0071	mg/L	0.10000	ND	113	75-125			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000	0.0054	103	75-125			
Lithium	0.105	0.250	0.0103	mg/L	0.10000	ND	105	75-125			J
Matrix Spike Dup (6100710-MSD1)		Sou	ırce: AZJ069	96-05		Prepare	ed: 10/27/	16 Analyz	ed: 10/29	/16	
Antimony	0.110	0.0030	0.0008	mg/L	0.10000	ND.	110	75-125	2	20	
Arsenic	0.114	0.0050	0.0016	mg/L	0.10000	0.0058	108	75-125	3	20	
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0208	105	75-125	0.01	20	
Beryllium	0.0949	0.0150	0.0004	mg/L	0.10000	0.0005	94	75-125	0.7	20	
Boron	15.6	0.500	0.0321	mg/L	1.0000	13.7	192	75-125	0.4	20	QM-02
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000	0.0002	100	75-125	1	20	
Calcium	566	50.0	3.11	mg/L	1.0000	564	146	75-125	1	20	QM-02
Chromium	0.107	0.0100	0.0009	mg/L	0.10000	ND	107	75-125	2	20	
Cobalt	0.127	0.0100	0.0005	mg/L	0.10000	0.0253	102	75-125	1	20	
Copper	0.0927	0.0050	0.0005	mg/L	0.10000	ND	93	75-125	2	20	
Lead	0.0898	0.0050	0.0001	mg/L	0.10000	0.0016	88	75-125	3	20	
Molybdenum	0.110	0.0100	0.0017	mg/L	0.10000	ND	110	75-125	2	20	
Nickel	0.104	0.0050	0.0006	mg/L	0.10000	0.0063	98	75-125	8.0	20	
Selenium	0.124	0.0100	0.0010	mg/L	0.10000	0.0135	110	75-125	5	20	
Silver	0.0921	0.0100	0.0005	mg/L	0.10000	ND	92	75-125	2	20	
Thallium	0.0914	0.0010	0.0002	mg/L	0.10000	0.0004	91	75-125	2	20	
Vanadium	0.111	0.0100	0.0071	mg/L	0.10000	ND	111	75-125	1	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0054	99	75-125	4	20	
Lithium	0.102	0.250	0.0103	mg/L	0.10000	ND	102	75-125	2	20	J
Post Spike (6100710-PS1)		Sou	urce: AZJ069	96-05		Prenar	ed: 10/27/	16 Analyz	ad: 10/20	/16	
Antimony	109			ug/L	100.00	0.588	108	80-120	cu. 10/23	710	
Arsenic	113			ug/L	100.00	5.81	107	80-120			
Barium	124			ug/L	100.00	20.8	103	80-120			
Beryllium	96.2			ug/L	100.00	0.500	96	80-120			
Boron	16000			ug/L	1000.0	13700	233	80-120			QM-02
Cadmium	95.0			ug/L	100.00	0.172	95	80-120			
Calcium	585000			ug/L	1000.0	564000	NR	80-120			QM-02
Chromium	108			ug/L	100.00	0.110	108	80-120			Q 02
Cobalt	126			ug/L	100.00	25.3	101	80-120			
Copper	91.0			ug/L	100.00	0.183	91	80-120			
Lead	88.5			ug/L	100.00	1.57	87	80-120			
Molybdenum	109			ug/L	100.00	0.199	109	80-120			
Nickel	104			ug/L	100.00	6.33	98	80-120			
HONO	107			ug/L	100.00	0.33	90	00-120			



Report No.: AZJ0696

Attention: Mr. Joju Abraham

November 04, 2016

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100710 - EPA 3005A											
Post Spike (6100710-PS1)		Sou	urce: AZJ069	96-05		Prepare	ed: 10/27/	16 Analyz	ed: 10/29/	/16	
Selenium	128			ug/L	100.00	13.5	115	80-120			
Silver	91.0			ug/L	100.00	0.0447	91	80-120			
Thallium	90.1			ug/L	100.00	0.369	90	80-120			
Vanadium	109			ug/L	100.00	-0.296	110	80-120			
Zinc	103			ug/L	100.00	5.40	97	80-120			
Lithium	106			ug/L	100.00	0.650	105	80-120			
Batch 6100740 - EPA 7470A											
Blank (6100740-BLK1)						Prepare	ed & Anal	yzed: 10/2	8/16		
Mercury	ND	0.00050	0.000041	mg/L				-			
LCS (6100740-BS1)						Prepare	ed & Anal	yzed: 10/2	8/16		
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3	•	96	80-120			
Matrix Spike (6100740-MS1)		Sou	urce: AZJ070	02-01		Prepare	ed & Anal	yzed: 10/2	8/16		
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6100740-MSD1)		Sou	urce: AZJ070	02-01	Prepared & Analyzed: 10/28/16						
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3	ND.	97	75-125	2	20	
Post Spike (6100740-PS1)		Sou	urce: AZJ070	02-01		Prepare	ed & Anal	yzed: 10/2	8/16		
Mercury	1.70			ug/L	1.6667	0.00850	101	80-120			



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 04, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit MDL - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

- **QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- **QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
 - J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

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



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 04, 2016

Report Notes

The metals for HGWC-15 was pH adjusted by the Lab with HNO3. MMR

CHAIN OF CUSTODY RECORD	CUSTC	OY RE	8		Pace Analytical	Pace An 110 TEC (770) 73	alytical HNOLO 1-4200	Service: IGY PA FAX (7	s, Inc. RKWAY 70) 734	Pace Analytical Services, Inc. 110 TECHNOLOGY PARKWAY, PEACHTREE CORNE (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com	ZEE CC .asi-lab	Pace Analytical Services, Inc. 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com	30092	PAGE:	- P	-
CLIENT NAME:							l	Ŕ	ALYSIS	ANALYSIS REQUESTED	Œ		7,0	CONTAINER TYPE	PRESERVATION	NO
Georgia Power						CONTAINER TYPE:	PE: P	┝	۵				¥		1 - HCI, ≤6°C	ပ မွ
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	3S/PHONE	NUMBERA	FĀ	NUMBER:		PRESERVATION	3	7	3				8		2 - H₂SO₄, ⊴6°C	ა ზ
241 Raiph McGill Blvd SE B10185	BIVA SE B	10185				jo#								G - CLEAR GLASS	3 - HNO3 4 - NaOH S6°C	
404-506-7239	0					υ								,	5 - NaOH/ZnAc, St	l/ZnAc, ≤€
	moderate in			CC: Maria Padilla	Bla	0 2						-	o ·	O - OTHER	6 - Na ₂ S ₂ O _{3, ≤} 6°C 7 - ≤6°C not froze	್ರಿ. not froze
REQUESTED COMPLETION DATE:	JMPLETION	N DATE:		PO#:	thomas and	: ⊢ <	٨						2 =		MATRIX CODES.	
PROJECT NAME/STATE	STATE					· – :	19 111	(00)		· · · · · ·			E o	W SWINKING W	IIOS -S	
		Fact H	Ĕ	Plant Hammond - AP 162		z w			85				0 W	Š	ę.	BG
PROJECT #:				CCR		6 0		SOT &	6 & 22				R	•	™	۵
Collection	Collection	MATRIX CODE:	U O 3	G R SAMPLE IDENTIFICATION	VTIFICATION		ne9 els.	A 6020 F, SO, 7	SS muit e axs-v					ST - STORM WATER W - WATER	L - CIQUID P - PRODUCT	DICT DICT
		2000		⟨ 89		+		(1)	Rad				À	27,000	REMARKS/ADDITIONAL INFORMATION	MATION
10/24/16	13:05	ĞW		X HGWC-10	C-10	3	-	-	1				7			
10/24/16	14:45	GW		X HGWC-13	C-13	ო	1	-	1				K	SO A		
	16:30	W		X FB-1	-	9	1	-	1				0	# * * * * * * * * * * * * * * * * * * *		
10/24/16	16:35	W		X FER8-1	8-1	က	-	-	1				7			ļ
	16:10	SW GW		X HGWC-14	C-14	က	_	-	-				وا		ì	į
	13:15	Αğ			C-11	က	_	-	-				9	征额		
	14:45	МS		X HGWC-12	C-12	~	_	<u> </u>	-				*			į
	16:27	ΑĐ		X HGWC-15	C-15	8	-	-	-				3 7	N. C.		
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SAMPLED BY AND TITLE	VO TITLE:	G. Jirak		GET DATE/TIME:		RELINGUISHED BY	夏	7	2	·		DATE/TIME:	19,02	[AB # # 4 2	FOR LAB USE ONEY.	1
RECEIVED BY:	m. Notes			DATE/TIME:		RELINQUISMED BY:	SHED B	2		(DATE/TIME:			V_{DR}^{-1}	Q
REFERENCE TO THE PROPERTY OF T		mann		PONETRINES//C	01719	SAMPLE SHIPPED VIA:	HPPED FED-EX	VIA: US		OURIER)	CLIEN	**CLIENT*** OTHER *** FS:	THE FS.	10 181		/
198 de	<u> </u>	100) 200		Lens Marke						Cooler ID				

20161024 Hammond COC.xlsx



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

LOG-IN CHECKLIST

Printed: 11/4/2016 4:24:56PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AZJ0696

Date Received: 10/25/16 14:10 Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 8 **#Containers:** 24

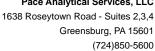
Minimum Temp(C): 1.0 Maximum Temp(C): 1.0 Custody Seal(s) Used: Yes

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:

The metals for HGWC-15 was pH adjusted by the Lab with HNO3. MMR





November 30, 2016

Maria Padilla **GA Power** 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30200508

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on October 26, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jacquelyn Collins

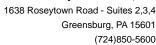
Sugnely Sellins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30200508

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

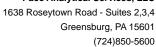
Wyoming Certification #: 8TMS-L



SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30200508

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30200508001	HGWC-10	Water	10/24/16 13:05	10/26/16 10:30
30200508002	HGWC-13	Water	10/24/16 14:45	10/26/16 10:30
30200508003	FB-1	Water	10/24/16 16:30	10/26/16 10:30
30200508004	FERB-1	Water	10/24/16 16:35	10/26/16 10:30
30200508005	HGWC-14	Water	10/24/16 16:10	10/26/16 10:30
30200508006	HGWC-11	Water	10/24/16 13:15	10/26/16 10:30
30200508007	HGWC-12	Water	10/24/16 14:45	10/26/16 10:30
30200508008	HGWC-15	Water	10/24/16 16:27	10/26/16 10:30





SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30200508

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30200508001	HGWC-10	EPA 9315		1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200508002	HGWC-13	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200508003	FB-1	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200508004	FERB-1	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200508005	HGWC-14	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200508006	HGWC-11	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200508007	HGWC-12	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200508008	HGWC-15	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30200508

Pace Project No.: 3020050	8					
Sample: HGWC-10 PWS:	Lab ID: 3020050 Site ID:	8001 Collected: 10/24/16 13:05 Sample Type:	Received:	10/26/16 10:30 M	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0606 ± 0.187 (0.460)	pCi/L	11/09/16 07:02	13982-63-3	
Radium-228	EPA 9320	C:86% T:NA 0.856 ± 0.396 (0.659) C:77% T:88%	pCi/L	11/28/16 15:22	15262-20-1	
Total Radium	Total Radium Calculation	0.917 ± 0.583 (1.12)	pCi/L	11/29/16 16:28	7440-14-4	
Sample: HGWC-13	Lab ID: 3020050	08002 Collected: 10/24/16 14:45	Received:	10/26/16 10:30 Ma	atrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.394 ± 0.265 (0.428) C:83% T:NA	pCi/L	11/09/16 07:02	13982-63-3	
Radium-228	EPA 9320	1.15 ± 0.452 (0.677) C:78% T:80%	pCi/L	11/28/16 15:22	15262-20-1	
Total Radium	Total Radium Calculation	1.54 ± 0.717 (1.11)	pCi/L	11/29/16 16:28	7440-14-4	
Sample: FB-1 PWS:	Lab ID: 3020050 Site ID:	08003 Collected: 10/24/16 16:30 Sample Type:	Received:	10/26/16 10:30 Ma	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0861 ± 0.132 (0.434)	pCi/L	11/09/16 07:03	13982-63-3	
Radium-228	EPA 9320	C:91% T:NA 0.967 ± 0.403 (0.608) C:79% T:76%	pCi/L	11/28/16 15:22	15262-20-1	
Total Radium	Total Radium Calculation	0.967 ± 0.535 (1.04)	pCi/L	11/29/16 16:28	7440-14-4	
Sample: FERB-1 PWS:	Lab ID: 3020050 Site ID:	08004 Collected: 10/24/16 16:35 Sample Type:	Received:	10/26/16 10:30 M	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.106 ± 0.171 (0.380)	pCi/L	11/09/16 07:03	13982-63-3	
Radium-228	EPA 9320	C:96% T:NA 0.740 ± 0.380 (0.651) C:76% T:81%	pCi/L	11/28/16 15:22	15262-20-1	
Total Radium	Total Radium Calculation	0.846 ± 0.551 (1.03)	pCi/L	11/29/16 16:28	7440-14-4	
Sample: HGWC-14 PWS:	Lab ID: 3020050 Site ID:	08005 Collected: 10/24/16 16:10 Sample Type:	Received:	10/26/16 10:30 Ma	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.435 ± 0.199 (0.252) C:97% T:NA	pCi/L	11/09/16 07:10	13982-63-3	
Radium-228	EPA 9320	1.44 ± 0.480 (0.645) C:78% T:89%	pCi/L	11/28/16 15:22	15262-20-1	



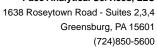
ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 3020050	8					
Sample: HGWC-14 PWS:	Lab ID: 30200508 Site ID:	3005 Collected: 10/24/16 16:10 Sample Type:	Received:	10/26/16 10:30 Ma	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	1.88 ± 0.679 (0.897)	pCi/L	11/29/16 16:28	7440-14-4	
Sample: HGWC-11	Lab ID: 30200508		Received:	10/26/16 10:30 Ma	atrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.225 ± 0.158 (0.260) C:91% T:NA	pCi/L	11/09/16 07:10	13982-63-3	
Radium-228	EPA 9320	1.19 ± 0.493 (0.772) C:76% T:77%	pCi/L	11/28/16 15:23	15262-20-1	
Total Radium	Total Radium Calculation	1.42 ± 0.651 (1.03)	pCi/L	11/29/16 16:28	7440-14-4	
Sample: HGWC-12 PWS:	Lab ID: 30200508	8007 Collected: 10/24/16 14:45 Sample Type:	Received:	10/26/16 10:30 Ma	atrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.218 ± 0.168 (0.301) C:93% T:NA	pCi/L	11/09/16 07:10	13982-63-3	
Radium-228	EPA 9320	1.76 ± 0.571 (0.753) C:80% T:77%	pCi/L	11/28/16 15:23	15262-20-1	
Total Radium	Total Radium Calculation	1.98 ± 0.739 (1.05)	pCi/L	11/29/16 16:28	7440-14-4	
Sample: HGWC-15	Lab ID: 30200508		Received:	10/26/16 10:30 Ma	atrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.197 ± 0.160 (0.285) C:87% T:NA	pCi/L	11/09/16 07:10	13982-63-3	
Radium-228	EPA 9320	0.772 ± 0.385 (0.657) C:75% T:87%	pCi/L	11/28/16 15:23	15262-20-1	
Total Radium	Total Radium Calculation	$0.969 \pm 0.545 (0.942)$	pCi/L	11/29/16 16:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Calculation





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200508

QC Batch: 239218 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30200508001, 30200508002, 30200508003, 30200508004

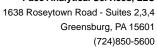
METHOD BLANK: 1175535 Matrix: Water

Associated Lab Samples: 30200508001, 30200508002, 30200508003, 30200508004

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 -0.0550 ± 0.118 (0.398) C:85% T:NA pCi/L 11/09/16 06:59

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





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200508

QC Batch: 239219 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30200508005, 30200508006, 30200508007, 30200508008

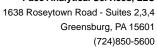
METHOD BLANK: 1175537 Matrix: Water

Associated Lab Samples: 30200508005, 30200508006, 30200508007, 30200508008

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 -0.0202 ± 0.0834 (0.245) C:99% T:NA pCi/L 11/09/16 07:10

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200508

QC Batch: 239882 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30200508001, 30200508002, 30200508003, 30200508004, 30200508005, 30200508006, 30200508007,

30200508008

METHOD BLANK: 1178558 Matrix: Water

Associated Lab Samples: 30200508001, 30200508002, 30200508003, 30200508004, 30200508005, 30200508006, 30200508007,

30200508008

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.610 \pm 0.398 (0.756) C:82% T:76% pCi/L 11/28/16 15:21

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





QUALIFIERS

Project: Plant Hammond Pace Project No.: 30200508

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.

Date: 11/30/2016 02:41 PM

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#:30200508

Pace Analytical

Chain of Custody

LAB USE ONLY Results Requested By: 11/28/2016 200 007 003 C. 00 S 8 8 Comments Requested Analysis 500 Date/Time Radium 226, 228, Total Owner Received Date: Preserved Containers КОИН Matrix 8 Ø ĕ ΜĐ 8 8 ≥ ≥ Received By AZJ0696-03 AZJ0696-04 AZJ0696-05 AZJ0696-06 AZJ0696-01 AZJ0696-02 AZJ0696-07 AZJ0696-08 Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Collect Date/Time Lab ID Date/Time Pace - Pittsburgh Subcontract To: 10/24/2016 13:05 10/24/2016 14:45 10/24/2016 16:30 10/24/2016 16:35 10/24/2016 16:10 10/24/2016 13:15 10/24/2016 14:45 10/24/2016 16:27 Stes. 2,3,4 Workorder Name: Sample Туре G ŋ g G 9 Ð G nman Peachtree Corners, GA 30092 110 Technology Parkway Workorder: AZJ0696 202 Pace Analytical Atlanta Phone (770)-734-4200 Transfers Released By Betsy McDaniel Item |Sample ID **HGWC-13** HGWC-10 HGWC-14 **HGWC-12** HGWC-15 HGWC-11 FERB-1 FB-1 9 ∞

***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.

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Sample Intact (Y or N

Received on Ice Y or N

Custody Seal Y or (N

ပ

Cooler Temperature on Receipt

30200508

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

CLIENT NAME:								2/1/1/					
Georgia Power				43	TOOK GINE OF THE	-	۰ ۲ ا	NAL 1	ANAL 1313 REQUESTED			CONTAINER TYPE	PRESERVATION
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OLIENI ADDRE.		A CANDERY	2		PRESERVATION:	+	3	<u>س</u>			m	A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C
41 Raiph McGill Bivd SE B10185	I BIVO SE B	68101			# #							G - CLEAR GLASS	3 - HNO ₃
404-506-7239	2				U						_	V - VOA VIAL	4 - NaOH, ≤6°C
REPORT TO:				CC: Maria Padilla	0						- c	0 - 0 - ERICE	3 - NaOn/ZnAc, 20 C
•	Joju Abraham	am			z) 	2010	5 - Na ₂ 52O ₃ , S6 C
REQUESTED COMPLETION DATE:	OMPLETIO	N DATE:		PO#:	-						2		
DRO IECT NAME/STATE:	-/STATE:			laburch@southernco.com	۷ -	√1 %		(5	*MATRI	*MATRIX CODES:
	j	Plant He	mmor	Plant Hammond - AP 1&2	- z	III .c					Z "	DW - DRINKING WATER	IIOS -S
					ш	ıqĄ	(82			ıω	www-wastewater	SL - SUIDGE
PROJECT #:				CCR	oc v	797	0747 20T	8 2V 8 2V			깥	GW - GROUNDWATER	SD - SOLID
\vdash	⊢		\vdash)	he ^c	\02 8 ≱C	526				SW - SURFACE WAIEK	A- AIR
Collection C	Collection	MATRIX	0 2	SAMPLE IDENTIFICATION		als F	08 A DS ,=	mni					L- CIQUID P- PRODUCT
		7	-		•	19M	(EP.	Rad			->	REMARKS/ADDITIC	REMARKS/ADDITIONAL INFORMATION
10/24/16	13:05	GW		X HGWC-10	က		1 1	-					
10/24/16	14:45	GW	$\hat{}$	X HGWC-13	က		-	-			6		
10/24/16	16:30	W	$\hat{-}$	X FB-1	3		-	-			6)		
10/24/16	16:35	w		X FERB-1	m		-	-			せ		
10/24/16	16:10	GW	Ĥ	X HGWC-14	٣	_	-	-			 		
10/24/16	13:15	βW	$\hat{}$	X HGWC-11	r			-			2		
10/24/16	14:45	GW	$\hat{\dashv}$	X HGWC-12	က		-	-			7		
10/24/16	16:27	GW	$\hat{-}$	X HGWC-15	က		1	-			X		
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SAMPLED BY AND TITLE: A. Shoredits A.S; M. Rogers A.R.	ND TITLE: M. Rogers	G. Jirak			RELINOMENE	夏	in the second	1 7		DATE/TIME:	, E.	FOR LAB USE ON	USEONLY
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pH checked:	ΨN	log No No	NAN) P. Max	Custody Seal:		3	2	J	Cooler ID:	- P		
	ľ			YPIN			Not Fresen	Section	EN INVESTIGATION				

20161024 Hammond COC.xlsx

Sample Condition Upon Rece	eipt l	Pitts	burg	gh	
Face Analytical Client Name:	2	40	<u> </u>	GA	Project # 30200508
Courier: K Fed Ex UPS USPS Clie Tracking #: MSTL (08/Z 5/60) (nt 🗆 <u>538</u>	Comn	nercia	I ☐ Pace Other	
Custody Seal on Cooler/Box Present:	\rightarrow	no	Sea	ls intact:	□ no
Thermometer Used NA	Турє	of Ice	: W	et Blue None	A °C Final Temp <u>: NA</u> °C
Cooler Temperature Observed Temp	A	۰c	Cor	rection Factor:	A · C Final Temp: NA · C
Temp should be above freezing to 6°C					
•					Date and Initials of person examining contents: 10 -7 (0 -1 (0 Tent)
Comments:	Yes	No	N/A	1	
Chain of Custody Present:	1	1		1.	
Chain of Custody Filled Out:	1		<u> </u>	2.	
Chain of Custody Relinquished:	$\perp V$,		3. NOTIME	
Sampler Name & Signature on COC:		V		4.	
Sample Labels match COC:	W	1		5.	
-Includes date/time/ID/Analysis Matrix:	W	1		<u> </u>	
Samples Arrived within Hold Time:	11/	+		6.	
Short Hold Time Analysis (<72hr remaining):		1		7.	·
Rush Turn Around Time Requested:		V		8.	
Sufficient Volume:	V			9.	
Correct Containers Used:	1			10.	
-Pace Containers Used:		V			
Containers Intact:	V			11.	
Filtered volume received for Dissolved tests			V	12.	
All containers needing preservation have been checked.	1			13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	V			PHZ	
eventions: VOA soliform TOC OSC Phonelies				Initial when	Date/time of
exceptions: VOA, coliform, TOC, O&G, Phenolics				completed ///	preservation
		r** 1		preservative	
Headspace in VOA Vials (>6mm):			\underline{V}	14.	
Trip Blank Present:		1		15.	•
Trip Blank Custody Seals Present			$\underline{\mathcal{V}}$		
Rad Aqueous Samples Screened > 0.5 mrem/hr		V		Initial when TAW) Date: 10 -26-16
Client Notification/ Resolution:					
Person Contacted:			Date/	Гime:	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.

Pace Analytical

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

22 Analyst: Test: Date: Worklist: Matrix:

1/8/2016 32294 DW

MB concentration; MB Sample ID MB MDC: M/B Counting Uncertainty: MB Numerical Performance Indicator: MB Status vs Numerical Indicator;

Method Blank Assessment

MB Status vs. MDC

1175537 -0.020 0.083 0.245 -0.47 N/A Pass

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

LCSD32294

(YorN)

Laboratory Control Sample Assessment

11/9/2016 16-026

Count Date

Spike I.D.

44.675

Spike Concentration (pCi/mL): Aliquot Volume (L. g, F): Uncertainty (Calculated): Result (pCi/L, g, F):

Volume Used (mt)

0.506 0.416 7.443 0.860

Target Conc. (pCi/L, g, F):

-2.86 84.23%

Percent Recovery: Status vs Numerical Indicator:

Status vs Recovery

Duplicate Sample Assessment

LCS/LCSD Counting Uncertainty (pCi/L, g, F):

Numerical Performance Indicator:

MS Status vs Recovery: MSD Status vs Recoven Matrix Spike/Matrix Spike Duplicate Sample Assessment Sample I.D.

Sample MS I.D. Sample MSD I.D.

Sample Matrix Spike Result:

Sample Matrix Spike Duplicate Result:

MS/ MSD Duplicate RPD;

MS/ MSD Duplicate Status vs RPD

Duplicate Numerical Performance Indicator:

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L. 9, F): Matrix Spike Result Counting Uncertainty (pCi/L, g, F): MS/ MSD Duplicate Status vs Numerical Indicator: .CS/LCSD in the Enter Duplicate sample IDs if space below. other than 30200749001DUP 0.927 0.267 1.134 0.354 See Below ## 30200749001

Sample I.D.: Duplicate Sample I.D.

Sample Result (pCi/L, g, F):

Sample Result Counting Uncertainty (pC//L, g, F): Sample Duplicate Result (pCi/L, g, F):

-0.917 20.13% N/A Pass Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC? Duplicate RPD: Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD

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

Comments:

TAR DW QC Printed: 11/30/2016 10:46 AM

Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample I.D. Sample Collection Date Sample MS 1.D. Spike I.D.:

Sample MSD I.D.

JC2 1/8/2016 Test: Date: Worklist: Matrix: Analyst:

0.118 0.398 -0.91 MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC: MB'Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC:

Method Blank Assessment

Laboratory Control Sample Assessment

Sample Matrix Spike Control Assessment N/A Pass

MS/MSD Decay Corrected Spike Concentration (pCi/mL);

Spike Volume Used in MS (mL). Spike Volume Used in MSD (mL):

MSD Aliquot (L, g, F):

Sample Result

MS Aliquot (L, g, F) MS Target Conc.(pCi/L, g, F): MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated):

Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MSD Numerical Performance Indicator: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Numerical Performance Indicator: N LCSD32293 CS32293 11/9/2016 16-026 44.675 0.10 0.501 8.926 0.420 7.610 0.866 -2.68 Count Date: Target Conc. (pCi/L, g, F): Uncertainty (Calculated): Spike I.D.: Spike Concentration (pCi/mL): Aliquot Volume (L, g, F): LCS/LCSD Counting Uncertainty (pCl/L, g, F): Numerical Performance Indicator: Percent Recovery: Volume Used (ml.); Result (pCi/L, g, F): Status vs Numerical Indicator: Status vs Recovery

MS Percent Recovery MSD Percent Recovery. MS Status vs Recovery:

MSD Status vs Recoven

Duplicate Sample Assessment

Sample MS I.D.

Sample MSD I.D.

Sample Matrix Spike Result:

Sample Matrix Spike Duplicate Result:

MS/ MSD Duplicate RPD;

MS/ MSD Duplicate Status vs Numerical Indicator; Duplicate Numerical Performance Indicator.

MS/ MSD Duplicate Status vs RPD

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F); Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Matrix Spike/Matrix Spike Duplicate Sample Assessment CS/LCSD in the Enter Duplicate sample IDs if space below. other than 30200502001 30200502001DUP See Below ## -0.700 18.00% 0.372 1.175 0.397 N/A Pass 0.981 Sample I.D.: Duplicate Sample I.D. Sample Result Counting Uncertainty (pCl/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Are sample and/or duplicate results below MDC? Duplicate Numerical Performance Indicator: Duplicate RPD: Duplicate Status vs Numerical Indicator; Duplicate Status vs RPD:

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

Comments:

Printed: 11/30/2016 10:46 AM TAR DW QC

Face Analytical

Quality Control Sample Performance Assessment

Test: Analyst:

ΛIN Worklist: Matrix: Date:

1/22/2016 32406 DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date: Sample MS I.D. Sample Matrix Spike Control Assessment

Sample MSD 1.D. MS/MSD Decay Corrected Spike Concentration (pCl/mL); Spike I.D.:

Spike Volume Used in MS (mL) MS Aliquot (L, g, F): Spike Volume Used in MSD (mL) MS Target Conc.(pCi/L, g, F)

MSD Target Conc. (pCi/L, g, F): MSD Aifquot (L, g, F); Spike uncertainty (calculated):

LCSD32406

11/28/2016

Count Date: Spike I.D.:

Spike Concentration (pCi/mL):

LCS32406

CSD (Y or N

Laboratory Control Sample Assessment

0.383 0.756 3.12 N/A Pass

MB Numerical Performance Indicator:

MB Status vs Numerical Indicator; MB Status vs. MDC:

M/B Counting Uncertainty:

MB Sample ID MB concentration; MB MDC:

Method Blank Assessment

Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result

Sample Matrix Spike Duplicate Result

16-027 25.962 0.20 0.813 6.385 0.460 8.119 0.744

Target Conc. (pCi/L, g, F):

Aliquot Volume (L, g, F) Uncertainty (Calculated)

Volume Used (mL)

Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F):

Percent Recovery:

Status vs Recovery

Duplicate Sample Assessment

Numerical Performance Indicator Status vs Numerical Indicator.

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L_w.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

Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result.

other than LCS/LCSD in Enter Duplicate

sample IDs if

Duplicate Sample I.D. 30200749001DUP

30200749001

Sample I.D.:

he space below

1.763 0.390 2.026 0.427

Sample Result (pCift., g, F):
Sample Result Counting Uncertainty (pCift., g, F):
Sample Duplicate Result (pCift., g, F):
Uplicate Result Counting Uncertainty (pCift., g, F):
Are sample and/or duplicate results below MDC?

Sample Duplicate Result Counting Uncertainty (pCi/L, g,

See Below 排

-0.892 13.88%

Duplicate RPD

Duplicate Status vs RPD,

Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator:

ΑX

Sample I.D.

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:



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: AZJ0727 November 07, 2016

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, Inc.

All test results relate only to the samples analyzed.



Attention: Mr. Joju Abraham

PACE ANALYTICAL SERVICES, INC.

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

November 07, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-18	AZJ0727-01	Ground Water	10/25/16 12:30	10/26/16 11:50
HGWC-16	AZJ0727-02	Ground Water	10/25/16 11:35	10/26/16 11:50
HGWC-17	AZJ0727-03	Ground Water	10/25/16 12:35	10/26/16 11:50
FERB-2	AZJ0727-04	Water	10/25/16 10:00	10/26/16 11:50
FB-2	AZJ0727-05	Water	10/25/16 09:00	10/26/16 11:50
Dup-2	AZJ0727-06	Ground Water	10/25/16 00:00	10/26/16 11:50



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

Report No.: AZJ0727 Client ID: HGWC-18

Date/Time Sampled: 10/25/2016 12:30:00PM

Matrix: Ground Water

November 07, 2016

Project: CCR Event
Lab Number ID: AZJ0727-01

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1870	25	10	mg/L	SM 2540 C		1	10/27/16 16:30	10/27/16 16:30	6100729	JPT
Inorganic Anions											
Chloride	290	25	1.4	mg/L	EPA 300.0		100	10/27/16 14:24	11/02/16 22:56	6100735	RLC
Fluoride	0.58	0.30	0.02	mg/L	EPA 300.0		1	10/27/16 14:24	10/29/16 01:51	6100735	RLC
Sulfate	950	100	5.1	mg/L	EPA 300.0		100	10/27/16 14:24	11/02/16 22:56	6100735	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Arsenic	0.0060	0.0050	0.0016	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Barium	0.0349	0.0100	0.0004	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Beryllium	0.0034	0.0030	0.00008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Boron	8.50	0.500	0.0321	mg/L	EPA 6020B		5	10/28/16 09:30	11/02/16 15:29	6100754	CSW
Cadmium	0.0022	0.0010	0.00007	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Calcium	362	25.0	1.55	mg/L	EPA 6020B		50	10/28/16 09:30	11/02/16 15:22	6100754	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Cobalt	0.188	0.0100	0.0005	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Lead	0.0015	0.0050	0.0001	mg/L	EPA 6020B	J	1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Selenium	0.0282	0.0100	0.0010	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Lithium	0.0160	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/28/16 09:30	10/31/16 13:56	6100754	CSW
Mercury	0.00004	0.00050	0.000041	mg/L	EPA 7470A	J	1	10/28/16 08:45	10/28/16 14:24	6100745	MTC



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

Report No.: AZJ0727 Client ID: HGWC-16

Date/Time Sampled: 10/25/2016 11:35:00AM

Matrix: Ground Water

November 07, 2016

Project: CCR Event

Lab Number ID: AZJ0727-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	563	25	10	mg/L	SM 2540 C		1	10/27/16 16:30	10/27/16 16:30	6100729	JPT
Inorganic Anions											
Chloride	35	2.5	0.14	mg/L	EPA 300.0		10	10/27/16 14:24	11/02/16 23:18	6100735	RLC
Fluoride	0.25	0.30	0.02	mg/L	EPA 300.0	J	1	10/27/16 14:24	10/29/16 02:11	6100735	RLC
Sulfate	230	10	0.51	mg/L	EPA 300.0		10	10/27/16 14:24	11/02/16 23:18	6100735	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Barium	0.0991	0.0100	0.0004	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Boron	1.27	0.100	0.0064	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Calcium	138	25.0	1.55	mg/L	EPA 6020B		50	10/28/16 09:30	11/02/16 15:35	6100754	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Lithium	0.0029	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/28/16 09:30	10/31/16 14:02	6100754	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 14:27	6100745	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZJ0727 Client ID: HGWC-17

Date/Time Sampled: 10/25/2016 12:35:00PM

Matrix: Ground Water

November 07, 2016

Project: CCR Event
Lab Number ID: AZJ0727-03

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	10/27/16 16:30	10/27/16 16:30	6100729	JPT
Inorganic Anions											
Chloride	98	2.5	0.14	mg/L	EPA 300.0		10	10/27/16 14:24	11/03/16 01:07	6100735	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	10/27/16 14:24	10/29/16 02:32	6100735	RLC
Sulfate	440	10	0.51	mg/L	EPA 300.0		10	10/27/16 14:24	11/03/16 01:07	6100735	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Barium	0.0225	0.0100	0.0004	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Boron	5.38	0.500	0.0321	mg/L	EPA 6020B		5	10/28/16 09:30	11/02/16 16:03	6100754	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Calcium	206	25.0	1.55	mg/L	EPA 6020B		50	10/28/16 09:30	11/02/16 15:56	6100754	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Cobalt	0.0141	0.0100	0.0005	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 14:29	6100745	MTC



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

Report No.: AZJ0727 Client ID: FERB-2

Date/Time Sampled: 10/25/2016 10:00:00AM

Matrix: Water

November 07, 2016

Project: CCR Event
Lab Number ID: AZJ0727-04

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	10/27/16 16:30	10/27/16 16:30	6100729	JPT
Inorganic Anions											
Chloride	7.3	0.25	0.01	mg/L	EPA 300.0		1	10/27/16 14:24	10/29/16 02:53	6100735	RLC
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	10/27/16 14:24	10/29/16 02:53	6100735	RLC
Sulfate	33	1.0	0.05	mg/L	EPA 300.0		1	10/27/16 14:24	10/29/16 02:53	6100735	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Boron	0.0257	0.100	0.0064	mg/L	EPA 6020B	J	1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Calcium	0.0441	0.500	0.0311	mg/L	EPA 6020B	J	1	10/28/16 09:30	10/31/16 14:08	6100754	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:14	6100754	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 14:31	6100745	MTC



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

Report No.: AZJ0727 Client ID: FB-2

Date/Time Sampled: 10/25/2016 9:00:00AM

Matrix: Water

November 07, 2016

Project: CCR Event

Lab Number ID: AZJ0727-05

Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
ND	25	10	mg/L	SM 2540 C		1	10/27/16 16:30	10/27/16 16:30	6100729	JPT
0.26	0.25	0.01	mg/L	EPA 300.0		1	10/27/16 14:24	10/29/16 03:13	6100735	RLC
0.11	0.30	0.02	mg/L	EPA 300.0	J	1	10/27/16 14:24	10/29/16 03:13	6100735	RLC
0.89	1.0	0.05	mg/L	EPA 300.0	J	1	10/27/16 14:24	10/29/16 03:13	6100735	RLC
ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
0.0123	0.100	0.0064	mg/L	EPA 6020B	J	1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.500	0.0311	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:19	6100754	CSW
ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 14:34	6100745	MTC
	ND 0.26 0.11 0.89 ND	ND 25 0.26 0.25 0.11 0.30 0.89 1.0 ND 0.0030 ND 0.0050 ND 0.0100 ND 0.0010 ND 0.500 ND 0.0100 ND 0.0500	ND 25 10 0.26 0.25 0.01 0.11 0.30 0.02 0.89 1.0 0.055 ND 0.0030 0.0008 ND 0.0050 0.0016 ND 0.0100 0.0004 ND 0.0030 0.0008 0.0123 0.100 0.0064 ND 0.0010 0.0007 ND 0.500 0.0311 ND 0.0100 0.0009 ND 0.0100 0.0005 ND 0.0100 0.0005 ND 0.0100 0.0017 ND 0.0100 0.0017 ND 0.0100 0.0010 ND 0.0100 0.0010 ND 0.0100 0.0002 ND 0.0500 0.0021	ND 25 10 mg/L 0.26 0.25 0.01 mg/L 0.11 0.30 0.02 mg/L 0.89 1.0 0.05 mg/L ND 0.0030 0.0008 mg/L ND 0.0050 0.0016 mg/L ND 0.0100 0.0004 mg/L ND 0.0030 0.00008 mg/L ND 0.0100 0.0004 mg/L ND 0.0100 0.0007 mg/L ND 0.500 0.0311 mg/L ND 0.0100 0.0009 mg/L ND 0.0100 0.0005 mg/L ND 0.0100 0.0005 mg/L ND 0.0100 0.0005 mg/L ND 0.0100 0.0005 mg/L ND 0.0100 0.0001 mg/L ND 0.0100 0.0010 mg/L ND 0.0100 0.0010 mg/L ND 0.0100 0.0010 mg/L ND 0.0100 0.0002 mg/L ND 0.0500 0.0021 mg/L	ND 25 10 mg/L SM 2540 C 0.26 0.25 0.01 mg/L EPA 300.0 0.11 0.30 0.02 mg/L EPA 300.0 0.89 1.0 0.05 mg/L EPA 6020B ND 0.0050 0.0016 mg/L EPA 6020B ND 0.0030 0.0008 mg/L EPA 6020B ND 0.0030 0.0008 mg/L EPA 6020B ND 0.0030 0.00008 mg/L EPA 6020B ND 0.0030 0.00008 mg/L EPA 6020B ND 0.0030 0.00008 mg/L EPA 6020B ND 0.0010 0.00064 mg/L EPA 6020B ND 0.0010 0.00067 mg/L EPA 6020B ND 0.500 0.0311 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0010 mg/L EPA 6020B ND 0.0100 0.0011 mg/L EPA 6020B ND 0.0100 0.0012 mg/L EPA 6020B ND 0.0010 0.0002 mg/L EPA 6020B	ND 25 10 mg/L SM 2540 C 0.26 0.25 0.01 mg/L EPA 300.0 0.11 0.30 0.02 mg/L EPA 300.0 J 0.89 1.0 0.05 mg/L EPA 6020B ND 0.0050 0.0016 mg/L EPA 6020B ND 0.0030 0.0008 mg/L EPA 6020B ND 0.0030 0.0004 mg/L EPA 6020B ND 0.0030 0.00008 mg/L EPA 6020B ND 0.0100 0.0004 mg/L EPA 6020B ND 0.0123 0.100 0.0064 mg/L EPA 6020B ND 0.0010 0.0007 mg/L EPA 6020B ND 0.500 0.0311 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0010 mg/L EPA 6020B ND 0.0100 0.0010 mg/L EPA 6020B ND 0.0100 0.0001 mg/L EPA 6020B ND 0.0100 0.0002 mg/L EPA 6020B ND 0.0500 0.0021 mg/L EPA 6020B	ND 25 10 mg/L SM 2540 C 1 0.26 0.25 0.01 mg/L EPA 300.0 1 0.11 0.30 0.02 mg/L EPA 300.0 J 1 0.89 1.0 0.05 mg/L EPA 6020B 1 ND 0.0030 0.0008 mg/L EPA 6020B 1 ND 0.0100 0.0004 mg/L EPA 6020B 1 ND 0.0100 0.0004 mg/L EPA 6020B 1 ND 0.0100 0.0004 mg/L EPA 6020B 1 ND 0.0030 0.0004 mg/L EPA 6020B 1 ND 0.0010 0.0007 mg/L EPA 6020B 1 ND 0.500 0.0311 mg/L EPA 6020B 1 ND 0.0100 0.0005 mg/L EPA 6020B 1 ND 0.0100 0.0005 mg/L EPA 6020B 1 ND <td>Result RL MDL Units Method Qual. DF Date ND 25 10 mg/L SM 2540 C 1 10/27/16 16:30 0.26 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 0.11 0.30 0.02 mg/L EPA 300.0 J 1 10/27/16 14:24 0.89 1.0 0.05 mg/L EPA 300.0 J 1 10/27/16 14:24 ND 0.0030 0.0008 mg/L EPA 6020B J 1 10/27/16 14:24 ND 0.0050 0.0016 mg/L EPA 6020B J 1 10/28/16 09:30 ND 0.0100 0.0004 mg/L EPA 6020B J 1 10/28/16 09:30 ND 0.0030 0.0008 mg/L EPA 6020B J 1 10/28/16 09:30 ND 0.0100 0.0004 mg/L EPA 6020B J 1 10/28/16 09:30 ND 0.0100</td> <td>Result RL MDL Units Method Qual. DF Date Date ND 25 10 mg/L SM 2540 C 1 10/27/16 16:30 10/27/16 16:30 0.26 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 10/29/16 03:13 0.11 0.30 0.02 mg/L EPA 300.0 J 1 10/27/16 14:24 10/29/16 03:13 ND 0.030 0.005 mg/L EPA 300.0 J 1 10/28/16 09:30 10/31/16 14:19 ND 0.0030 0.0008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 ND 0.0100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 ND 0.0123 0.100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 ND 0.0010 0.0007 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 ND<td>Result RL MDL Units Method Qual. DF Date Date Batch ND 25 10 mg/L SM 2540 C 1 10/27/16 16:30 10/27/16 16:30 6100729 0.26 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 10/29/16 03:13 6100735 0.11 0.30 0.02 mg/L EPA 300.0 J 1 10/27/16 14:24 10/29/16 03:13 6100735 0.89 1.0 0.05 mg/L EPA 6020B 1 10/27/16 14:24 10/29/16 03:13 6100735 ND 0.0030 0.0008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 6100754 ND 0.0100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 6100754 ND 0.0100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 6100754 ND 0.0030 0.0008 mg</td></td>	Result RL MDL Units Method Qual. DF Date ND 25 10 mg/L SM 2540 C 1 10/27/16 16:30 0.26 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 0.11 0.30 0.02 mg/L EPA 300.0 J 1 10/27/16 14:24 0.89 1.0 0.05 mg/L EPA 300.0 J 1 10/27/16 14:24 ND 0.0030 0.0008 mg/L EPA 6020B J 1 10/27/16 14:24 ND 0.0050 0.0016 mg/L EPA 6020B J 1 10/28/16 09:30 ND 0.0100 0.0004 mg/L EPA 6020B J 1 10/28/16 09:30 ND 0.0030 0.0008 mg/L EPA 6020B J 1 10/28/16 09:30 ND 0.0100 0.0004 mg/L EPA 6020B J 1 10/28/16 09:30 ND 0.0100	Result RL MDL Units Method Qual. DF Date Date ND 25 10 mg/L SM 2540 C 1 10/27/16 16:30 10/27/16 16:30 0.26 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 10/29/16 03:13 0.11 0.30 0.02 mg/L EPA 300.0 J 1 10/27/16 14:24 10/29/16 03:13 ND 0.030 0.005 mg/L EPA 300.0 J 1 10/28/16 09:30 10/31/16 14:19 ND 0.0030 0.0008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 ND 0.0100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 ND 0.0123 0.100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 ND 0.0010 0.0007 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 ND <td>Result RL MDL Units Method Qual. DF Date Date Batch ND 25 10 mg/L SM 2540 C 1 10/27/16 16:30 10/27/16 16:30 6100729 0.26 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 10/29/16 03:13 6100735 0.11 0.30 0.02 mg/L EPA 300.0 J 1 10/27/16 14:24 10/29/16 03:13 6100735 0.89 1.0 0.05 mg/L EPA 6020B 1 10/27/16 14:24 10/29/16 03:13 6100735 ND 0.0030 0.0008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 6100754 ND 0.0100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 6100754 ND 0.0100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 6100754 ND 0.0030 0.0008 mg</td>	Result RL MDL Units Method Qual. DF Date Date Batch ND 25 10 mg/L SM 2540 C 1 10/27/16 16:30 10/27/16 16:30 6100729 0.26 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 10/29/16 03:13 6100735 0.11 0.30 0.02 mg/L EPA 300.0 J 1 10/27/16 14:24 10/29/16 03:13 6100735 0.89 1.0 0.05 mg/L EPA 6020B 1 10/27/16 14:24 10/29/16 03:13 6100735 ND 0.0030 0.0008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 6100754 ND 0.0100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 6100754 ND 0.0100 0.0004 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:19 6100754 ND 0.0030 0.0008 mg



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

Report No.: AZJ0727 Client ID: Dup-2

Date/Time Sampled: 10/25/2016 12:00:00AM

Matrix: Ground Water

November 07, 2016

Project: CCR Event
Lab Number ID: AZJ0727-06

Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
584	25	10	mg/L	SM 2540 C		1	10/27/16 16:30	10/27/16 16:30	6100729	JPT
34	0.25	0.01	mg/L	EPA 300.0		1	10/27/16 14:24	10/29/16 03:35	6100735	RLC
0.29	0.30	0.02	mg/L	EPA 300.0	J	1	10/27/16 14:24	10/29/16 03:35	6100735	RLC
230	10	0.51	mg/L	EPA 300.0		10	10/27/16 14:24	11/03/16 01:29	6100735	RLC
ND	0.0030	8000.0	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
0.100	0.0100	0.0004	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
ND	0.0030	80000.0	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
1.25	0.100	0.0064	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
136	25.0	1.55	mg/L	EPA 6020B		50	10/28/16 09:30	11/02/16 16:09	6100754	CSW
ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
0.0029	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/28/16 09:30	10/31/16 14:25	6100754	CSW
ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/28/16 08:45	10/28/16 14:41	6100745	MTC
	584 34 0.29 230 ND ND 0.100 ND 1.25 ND 136 ND	34 0.25 0.29 0.30 230 10 ND 0.0030 ND 0.0050 0.100 0.0100 ND 0.0010 136 25.0 ND 0.0100 ND 0.0010	ND 0.0030 0.0008 ND 0.0030 0.0008 ND 0.0050 0.0016 0.100 0.0100 0.0004 ND 0.0010 0.00064 ND 0.0010 0.00007 136 25.0 1.55 ND 0.0100 0.0009 ND 0.0100 0.0005 ND 0.0100 0.0005 ND 0.0100 0.0001 ND 0.0100 0.0017 ND 0.0100 0.0010 ND 0.0100 0.0001 ND 0.0100 0.0010 ND 0.0100 0.0001 ND 0.0100 0.0010 ND 0.0100 0.0001 ND 0.0100 0.0010 ND 0.0100 0.0002 0.0029 0.0500 0.0021	584 25 10 mg/L 34 0.25 0.01 mg/L 0.29 0.30 0.02 mg/L 230 10 0.51 mg/L ND 0.0030 0.0008 mg/L ND 0.0050 0.0016 mg/L 0.100 0.0100 0.0004 mg/L ND 0.0030 0.00008 mg/L ND 0.0030 0.00008 mg/L ND 0.0010 0.00007 mg/L ND 0.0100 0.00007 mg/L ND 0.0100 0.0005 mg/L ND 0.0100 0.0001 mg/L ND 0.0100 0.0017 mg/L ND 0.0100 0.0010 mg/L ND 0.0100 0.0010 mg/L ND 0.0010 0.0002 mg/L ND 0.0010 0.0002 mg/L ND 0.0010 0.0002 mg/L	584 25 10 mg/L SM 2540 C 34 0.25 0.01 mg/L EPA 300.0 0.29 0.30 0.02 mg/L EPA 300.0 230 10 0.51 mg/L EPA 6020B ND 0.0050 0.0016 mg/L EPA 6020B ND 0.0030 0.0004 mg/L EPA 6020B ND 0.0030 0.0004 mg/L EPA 6020B ND 0.0030 0.0004 mg/L EPA 6020B ND 0.0010 0.0004 mg/L EPA 6020B ND 0.0010 0.00007 mg/L EPA 6020B ND 0.0100 0.00007 mg/L EPA 6020B ND 0.0100 0.0009 mg/L EPA 6020B ND 0.0100 0.0005 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0017 mg/L EPA 6020B ND 0.0100 0.0010 mg/L EPA 6020B ND <	34	584 25 10 mg/L SM 2540 C 1 34 0.25 0.01 mg/L EPA 300.0 1 0.29 0.30 0.02 mg/L EPA 300.0 J 1 230 10 0.51 mg/L EPA 6020B 1 ND 0.0030 0.0008 mg/L EPA 6020B 1 ND 0.0050 0.0016 mg/L EPA 6020B 1 ND 0.0030 0.0004 mg/L EPA 6020B 1 ND 0.0030 0.0008 mg/L EPA 6020B 1 ND 0.0030 0.00064 mg/L EPA 6020B 1 ND 0.0010 0.00007 mg/L EPA 6020B 1 ND 0.0100 0.0009 mg/L EPA 6020B 1 ND 0.0100 0.0005 mg/L EPA 6020B 1 ND 0.0100 0.0017 mg/L EPA 6020B 1 ND 0.0100 0.0017 mg/L EPA 6020B 1 ND	Result RL MDL Units Method Qual. DF Date 584 25 10 mg/L SM 2540 C 1 10/27/16 16:30 34 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 0.29 0.30 0.02 mg/L EPA 300.0 J 1 10/27/16 14:24 230 10 0.51 mg/L EPA 6020B 1 10/28/16 09:30 ND 0.0030 0.0008 mg/L EPA 6020B 1 10/28/16 09:30 ND 0.0050 0.0016 mg/L EPA 6020B 1 10/28/16 09:30 ND 0.0030 0.0008 mg/L EPA 6020B 1 10/28/16 09:30 ND 0.0030 0.0008 mg/L EPA 6020B 1 10/28/16 09:30 ND 0.0030 0.0064 mg/L EPA 6020B 1 10/28/16 09:30 ND 0.0010 0.00007 mg/L EPA 6020B 1 10/28/	Result RL MDL Units Method Qual. DF Date Date 584 25 10 mg/L SM 2540 C 1 10/27/16 16:30 10/27/16 16:30 34 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 10/29/16 03:35 230 10 0.51 mg/L EPA 300.0 10 10/27/16 14:24 10/29/16 03:35 ND 0.0030 0.0008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:25 ND 0.0050 0.0016 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:25 ND 0.0030 0.00008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:25 ND 0.0030 0.00008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:25 ND 0.0010 0.00008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:25 ND 0.0010 0.00007	Result RL MDL Units Method Qual. DF Date Date Batch 584 25 10 mg/L SM 2540 C 1 10/27/16 16:30 10/27/16 16:30 6100729 34 0.25 0.01 mg/L EPA 300.0 1 10/27/16 14:24 10/29/16 03:35 6100735 0.29 0.30 0.02 mg/L EPA 300.0 J 1 10/27/16 14:24 10/29/16 03:35 6100735 230 10 0.51 mg/L EPA 6020B 1 10/27/16 14:24 11/03/16 01:29 6100754 ND 0.0030 0.0016 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:25 6100754 ND 0.0050 0.0016 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:25 6100754 ND 0.0030 0.00008 mg/L EPA 6020B 1 10/28/16 09:30 10/31/16 14:25 6100754 ND 0.0010 0.0004 mg/L



Attention: Mr. Joju Abraham

Report No.: AZJ0727

PACE ANALYTICAL SERVICES, INC.

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

November 07, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100729 - SM 2540 C											
Blank (6100729-BLK1)						Prepare	ed & Anal	yzed: 10/2	7/16		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6100729-BS1)						Prepare	ed & Anal	yzed: 10/2	7/16		
Total Dissolved Solids	360	25	10	mg/L	400.00		90	84-108			
Duplicate (6100729-DUP1)	DUP1) Source: AZJ0726-03 Prepared & Analyzed: 10/27/16										
Total Dissolved Solids	179	25	10	mg/L		172			4	10	
Duplicate (6100729-DUP2)		Soi	ırce: AZJ07	27-02		Prepare	ed & Anal	yzed: 10/2	7/16		
Total Dissolved Solids	567	25	10	mg/L		563		-	0.7	10	



Attention: Mr. Joju Abraham

Report No.: AZJ0727

PACE ANALYTICAL SERVICES, INC.

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

November 07, 2016

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100735 - EPA 300.0											
Blank (6100735-BLK1)						Prepare	ed: 10/27/	16 Analyz	ed: 10/28	/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 (6100735-BS1)						Prepare	ed: 10/27/	16 Analyz	ed: 10/28/	/16	
Chloride	10.1	0.25	0.01	mg/L	10.010		101	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.020		101	90-110			
Sulfate	10.1	1.0	0.05	mg/L	10.020		101	90-110			
Matrix Spike (6100735-MS1)		Sou	ırce: AZJ07	10-05		Prepare	ed: 10/27/	16 Analyz	ed: 10/28/	/16	
Chloride	10.8	0.25	0.01	mg/L	10.010	1.17	96	90-110			
Fluoride	9.73	0.30	0.02	mg/L	10.020	0.04	97	90-110			
Sulfate	10.4	1.0	0.05	mg/L	10.020	0.74	97	90-110			
Matrix Spike (6100735-MS2)		Sou	ırce: AZJ07	26-03		Prepared: 10/27/16 Analyzed: 10/29/16					
Chloride	14.1	0.25	0.01	mg/L	10.010	4.81	93	90-110			
Fluoride	9.53	0.30	0.02	mg/L	10.020	0.17	93	90-110			
Sulfate	40.1	1.0	0.05	mg/L	10.020	40.7	NR	90-110			QM-02
Matrix Spike Dup (6100735-MSD1)	SD1) Source: AZJ0710-05 Prepared: 10/27/16 Analyzed: 10/28							ed: 10/28/	/16		
Chloride	11.5	0.25	0.01	mg/L	10.010	1.17	103	90-110	6	15	
Fluoride	10.6	0.30	0.02	mg/L	10.020	0.04	105	90-110	9	15	
Sulfate	11.2	1.0	0.05	mg/L	10.020	0.74	104	90-110	7	15	



Attention: Mr. Joju Abraham

Report No.: AZJ0727

PACE ANALYTICAL SERVICES, INC.

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

November 07, 2016

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100745 - EPA 7470A											
Blank (6100745-BLK1)						Prepare	ed & Anal	yzed: 10/2	8/16		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6100745-BS1)						Prepare	ed & Anal	yzed: 10/2	8/16		
Mercury	0.00244	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			
Matrix Spike (6100745-MS1)		Soi	urce: AZJ071	10-06		Prepare	ed & Anal	yzed: 10/2	8/16		
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125			
Matrix Spike Dup (6100745-MSD1)		Soi	urce: AZJ071	10-06		Prepare	ed & Anal	yzed: 10/2	8/16		
Mercury	0.00244	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	0.5	20	
Post Spike (6100745-PS1)		Soi	urce: AZJ071	10-06		Prepare	ed & Anal	yzed: 10/2	8/16		
Mercury	1.70			ug/L	1.6667	0.00854	102	80-120	O, 10		
Batch 6100754 - EPA 3005A											
									1 40/04		
Blank (6100754-BLK1) Antimony	ND	0.0030	0.0008	ma/l		Prepare	ed: 10/28/	16 Analyz	ed: 10/31/	/16	
Arsenic	ND	0.0050	0.0008	mg/L mg/L							
Barium	ND	0.0100	0.0004	mg/L							
	ND	0.0030	0.0004	-							
Beryllium Boron	ND	0.100	0.0064	mg/L							
	ND	0.0010	0.0004	mg/L							
Calaium	ND	0.500	0.0311	mg/L							
Calcium	ND	0.0100	0.0009	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100		mg/L							
Copper			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							



Attention: Mr. Initi Abraham November 07, 2016

Attention: Mr. Joju Abraham

Report No.: AZJ0727

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100754 - EPA 3005A											
LCS (6100754-BS1)						Prepare	ed: 10/28/	16 Analyz	ed: 10/31/	/16	
Antimony	0.104	0.0030	0.0008	mg/L	0.10000		104	80-120			
Arsenic	0.0981	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.0998	0.0100	0.0004	mg/L	0.10000		100	80-120			
Beryllium	0.0990	0.0030	0.00008	mg/L	0.10000		99	80-120			
Boron	1.02	0.100	0.0064	mg/L	1.0000		102	80-120			
Cadmium	0.0997	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	1.00	0.500	0.0311	mg/L	1.0000		100	80-120			
Chromium	0.0995	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.0981	0.0100	0.0005	mg/L	0.10000		98	80-120			
Copper	0.0960	0.0050	0.0005	mg/L	0.10000		96	80-120			
Lead	0.0998	0.0050	0.0001	mg/L	0.10000		100	80-120			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000		103	80-120			
Nickel	0.0975	0.0050	0.0006	mg/L	0.10000		98	80-120			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000		103	80-120			
Silver	0.103	0.0050	0.0005	mg/L	0.10000		103	80-120			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000		102	80-120			
Vanadium	0.0975	0.0100	0.0071	mg/L	0.10000		98	80-120			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000		106	80-120			
Lithium	0.101	0.0500	0.0021	mg/L	0.10000		101	80-120			
Matrix Spike (6100754-MS1)		Sou	urce: AZJ071	10-07		Prepare	ed: 10/28/	16 Analyz	ed: 10/31/	/16	
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	ND	107	75-125		-	
Arsenic	0.0981	0.0050	0.0016	mg/L	0.10000	ND	98	75-125			
Barium	0.128	0.0100	0.0004	mg/L	0.10000	0.0271	101	75-125			
Beryllium	0.0975	0.0030	0.00008	mg/L	0.10000	0.00009	97	75-125			
Boron	1.04	0.100	0.0064	mg/L	1.0000	ND	104	75-125			
Cadmium	0.0988	0.0010	0.00007	mg/L	0.10000	0.0001	99	75-125			
Calcium	32.3	2.50	0.155	mg/L	1.0000	30.2	208	75-125			QM-02
Chromium	0.107	0.0100	0.0009	mg/L	0.10000	ND	107	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Copper	0.0968	0.0050	0.0005	mg/L	0.10000	ND	97	75-125			
Lead	0.100	0.0050	0.0001	mg/L	0.10000	0.0001	100	75-125			
Molybdenum	0.107	0.0100	0.0017	mg/L	0.10000	ND	107	75-125			
Nickel	0.100	0.0050	0.0006	mg/L	0.10000	0.0006	100	75-125			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000	ND	102	75-125			
Silver	0.102	0.0050	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 75-125			
Vanadium	0.107	0.0100	0.0071	mg/L	0.10000	ND	107	75-125 75-125			
Zinc	0.146	0.0100	0.0021	mg/L	0.10000	0.0402	107	75-125 75-125			
Lithium	0.102	0.0500	0.0021	mg/L	0.10000	0.0402 ND	103	75-125 75-125			
Liuliuili	0.102	0.0000	0.0021	Hg/L	0.10000	IND	102	10-120			



Attention: Mr. Joju Abraham November 07, 2016

Report No.: AZJ0727

Metals, Total - Quality Control

PACE ANALYTICAL SERVICES, INC.

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

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100754 - EPA 3005A											
Matrix Spike Dup (6100754-MSD1)		Sou	ırce: AZJ07	10-07		Prepare	ed: 10/28/	16 Analyz	ed: 10/31/	′16	
Antimony	0.104	0.0030	0.0008	mg/L	0.10000	ND	104	75-125	2	20	
Arsenic	0.0989	0.0050	0.0016	mg/L	0.10000	ND	99	75-125	0.9	20	
Barium	0.129	0.0100	0.0004	mg/L	0.10000	0.0271	101	75-125	0.4	20	
Beryllium	0.0954	0.0030	0.00008	mg/L	0.10000	0.00009	95	75-125	2	20	
Boron	0.985	0.100	0.0064	mg/L	1.0000	ND	99	75-125	5	20	
Cadmium	0.0995	0.0010	0.00007	mg/L	0.10000	0.0001	99	75-125	0.7	20	
Calcium	32.2	2.50	0.155	mg/L	1.0000	30.2	197	75-125	0.4	20	QM-02
Chromium	0.106	0.0100	0.0009	mg/L	0.10000	ND	106	75-125	1	20	
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125	1	20	
Copper	0.0990	0.0050	0.0005	mg/L	0.10000	ND	99	75-125	2	20	
Lead	0.100	0.0050	0.0001	mg/L	0.10000	0.0001	100	75-125	0.3	20	
Molybdenum	0.106	0.0100	0.0017	mg/L	0.10000	ND	106	75-125	8.0	20	
Nickel	0.102	0.0050	0.0006	mg/L	0.10000	0.0006	101	75-125	1	20	
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125	0.9	20	
Silver	0.102	0.0050	0.0005	mg/L	0.10000	ND	102	75-125	0.1	20	
Thallium	0.104	0.0010	0.0002	mg/L	0.10000	ND	104	75-125	0.005	20	
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000	ND	105	75-125	1	20	
Zinc	0.149	0.0100	0.0021	mg/L	0.10000	0.0402	109	75-125	3	20	
Lithium	0.0977	0.0500	0.0021	mg/L	0.10000	ND	98	75-125	5	20	
Post Spike (6100754-PS1)		Sou	ırce: AZJ07	10-07		Prepare	ed: 10/28/	16 Analyz	ed: 10/31/	′16	
Antimony	97.4			ug/L	100.00	0.314	97	80-120			
Arsenic	102			ug/L	100.00	0.144	102	80-120			
Barium	125			ug/L	100.00	27.1	97	80-120			
Beryllium	101			ug/L	100.00	0.0908	101	80-120			
Boron	1020			ug/L	1000.0	6.19	101	80-120			
Cadmium	101			ug/L	100.00	0.113	101	80-120			
Calcium	32400			ug/L	1000.0	30200	220	80-120			QM-02
Chromium	103			ug/L	100.00	0.860	102	80-120			
Cobalt	100			ug/L	100.00	0.0677	100	80-120			
Copper	95.2			ug/L	100.00	0.178	95	80-120			
Lead	98.2			ug/L	100.00	0.145	98	80-120			
Molybdenum	105			ug/L	100.00	0.161	105	80-120			
Nickel	95.9			ug/L	100.00	0.590	95	80-120			
Selenium	105			ug/L	100.00	0.123	105	80-120			
Silver	103			ug/L	100.00	0.0110	103	80-120			
Thallium	102			ug/L	100.00	0.0377	102	80-120			
Vanadium	103			ug/L	100.00	0.451	102	80-120			
Zinc	143			ug/L	100.00	40.2	103	80-120			
Lithium	103			ug/L	100.00	0.622	103	80-120			
Liunaiii	100			ug/L	100.00	0.022	103	00-120			



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

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

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

CHAIN OF CUSTODY RECORD

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

10

PAGE:

Administration of Personal													The second secon	
Georgia Power					CONTACKEN TYPE	d The	a.	Ь				4		1 - HCI, 56°C
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER	SS/PHONE	NUMBER	FAXN	UMBER:		-	H	-				60	A - AMBER GLASS	2 - H.SO. 55°C
241 Raiph McGill Blvd SE B10185 Allanta, GA 30308	Blvd SE B	110185			jo#								G - CLEAR GLASS V - VOA VIAL	3 - HND ₃ 4 - NaOH, 56°C
404-506-7239				1	0	_	_					-	S-STERILE	5 - NaOH/ZnAc, <6°C
REPORT TO:	Join Abraham	am		CC. Mania Padilla Heath McCookle	0 2	_						٥	O - OTHER	6 - Na ₂ S ₂ O ₃ ≤5°C
REQUESTED COMPLETION DATE	MPLETIO	NOATE		#OH	-	-	_					z		The second second
				laburch@southernco.com	٧	AL:	_					_	MATRI	"MATRIX CODES;
PROJECT NAME/STATE	STATE	Plant Hs	nommi	Plant Hammond - AP 18.2	- z	8 III .c						30 cc	DW - DRINKING WATER	108 - 8
					ш			8				ш	WW - WASTEWATER	St. SLUDGE
PROJECT #				CCR	2		SQT	8 SS				œ	GW - GROUNDWATER	SD - SOLD
					on		8	56					SW - SURFACE WATER	A. AIR
5	Collection	MATRIX	0 × :	SAMPLE IDENTIFICATION	_	हत था	'os '	.006 / 2 mu 2 848-				-	ST - STORM WATER W - WATER	L. UQUID P. PRODUCT
DATE	TIME	CODE.	< a		→		Cl. F	beA				*	REMARKS/ADDITIE	REMARKS/ADDITIONAL INFORMATION
10/25/16	12.30	GW	×	HGWC-18	7		*	2					- Extra volume collected for lab Ra analysis QA/QC.	ab Ra analysis OA/OC-
10/25/16	11:35	GW	×	t HGWC-16	ю			+				7		
10/25/16	12.35	GW	×	HGWC-17	(9)	- 57	42	+				3		
10/25/16	10.00	×	×	FERB-2	m		**	**				4		
10/25/16	00 60	W	×	FB-2	m		**	+				5		
10/25/16	t	GW	×	t DUP-2	100	-		-				9		
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SAMPLED BY AND TITLE	AD TITLE	G. Jirak		GE / DATE/TIME	RELINGUE	NOUISHED BY	18			DATE	DATE/TIME	_	FORLAB	FOR LAB USE ONLY
RECEIVED BY:	M. Rogers			14.00	RELINGUISHED BY:	SHED BY	4	3		DATE		1150	Entered into LIMS: Cott	72703
PACOSKIS A	Non In	man		1150 1150	SAMPLE SHI UPS FE	PLE SHIPPED VIA	T.	O SHEE	COURIER	(CLIENT)	OTHER	II.	Tracking #:	
1	200	2	81.0	Tamberature 1	Custody Sea	Santian C	3		# of Coolers	Cooler ID	Qi.			

20161025 Hammond COC.xlsx



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

LOG-IN CHECKLIST

Printed: 11/7/2016 3:46:16PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR EventWork Order:AZJ0727Date Received:10/26/16 11:50Logged In By:Charles Hawks

OBSERVATIONS

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

Minimum Temp(C): 1.0 Maximum Temp(C): 1.0 Custody Seal(s) Used: N/A

CHECKLIST ITEMS

YES
YES
YES
YES
NO
YES

Comments:

Greensburg, PA 15601 (724)850-5600



December 05, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30200749

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on October 27, 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

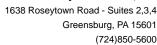
Sugnely Sellins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30200749

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 Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

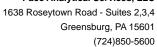
Rhode Island Certification #: 65-00282 South Dakota Certification

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

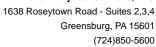




SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30200749

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30200749001	HGWC-18	Water	10/25/16 12:30	10/27/16 09:30
30200749002	HGWC-16	Water	10/25/16 11:35	10/27/16 09:30
30200749003	HGWC-17	Water	10/25/16 12:35	10/27/16 09:30
30200749004	FERB-2	Water	10/25/16 10:00	10/27/16 09:30
30200749005	FB-2	Water	10/25/16 09:00	10/27/16 09:30
30200749006	Dup-2	Water	10/25/16 00:00	10/27/16 09:30

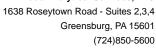




SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30200749

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30200749001	HGWC-18	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200749002	HGWC-16	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200749003	HGWC-17	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200749004	FERB-2	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200749005	FB-2	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200749006	Dup-2	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1





PROJECT NARRATIVE

Project: Plant Hammond
Pace Project No.: 30200749

Method: EPA 9315

Description: 9315 Total Radium

Client: Pace Analytical Services, Inc. Atlanta

Date: December 05, 2016

General Information:

6 samples were analyzed for EPA 9315. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

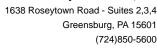
Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:





PROJECT NARRATIVE

Project: Plant Hammond
Pace Project No.: 30200749

Method: EPA 9320 Description: 9320 Radium 228

Client: Pace Analytical Services, Inc. Atlanta

Date: December 05, 2016

General Information:

6 samples were analyzed for EPA 9320. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Batch Comments:

Insufficient volume was available for a sample duplicate in batch 32407 for Ra-228 analysis by EPA 904.0. A LCS duplicate was prepared, however, it was inadvertently not spiked with Ra-228. The client was notified and gave permission to report samples from batch 32407 based on acceptable LCS recovery and MB results.

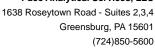
• QC Batch: 239884

Analyte Comments:

QC Batch: 239884

1c: Insufficient volume was available for a sample duplicate in batch 32407 for Ra-228 analysis by EPA 904.0. A LCS duplicate was prepared, however, it was inadvertently not spiked with Ra-228. The client was notified and gave permission to report samples from batch 32407 based on acceptable LCS recovery and MB results.

- BLANK (Lab ID: 1178563)
 - Radium-228
- Dup-2 (Lab ID: 30200749006)
 - Radium-228
- FB-2 (Lab ID: 30200749005)
 - Radium-228
- FERB-2 (Lab ID: 30200749004)
 - Radium-228
- HGWC-17 (Lab ID: 30200749003)
 - Radium-228





PROJECT NARRATIVE

Project: Plant Hammond Pace Project No.: 30200749

Method: Total Radium Calculation
Description: Total Radium 228+226

Client: Pace Analytical Services, Inc. Atlanta

Date: December 05, 2016

General Information:

6 samples were analyzed for Total Radium Calculation. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



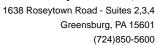
ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30200749

Pace Project No.: 3020074	9					
Sample: HGWC-18 PWS:	Lab ID: 302007 4 Site ID:	49001 Collected: 10/25/16 12:30 Sample Type:	Received:	10/27/16 09:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.927 ± 0.298 (0.275)	pCi/L	11/09/16 07:10	13982-63-3	-
Radium-228	EPA 9320	C:93% T:NA 1.76 ± 0.501 (0.532) C:82% T:90%	pCi/L	11/28/16 15:23	15262-20-1	
Total Radium	Total Radium Calculation	2.69 ± 0.799 (0.807)	pCi/L	11/29/16 16:28	7440-14-4	
Sample: HGWC-16	Lab ID: 3020074		Received:	10/27/16 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	0.131 ± 0.163 (0.331) C:93% T:NA	pCi/L	11/09/16 07:03	13982-63-3	
Radium-228	EPA 9320	0.918 ± 0.441 (0.749) C:79% T:76%	pCi/L	11/28/16 15:24	15262-20-1	
Total Radium	Total Radium Calculation	1.05 ± 0.604 (1.08)	pCi/L	11/29/16 16:28	7440-14-4	
Sample: HGWC-17 PWS:	Lab ID: 302007 4 Site ID:	49003 Collected: 10/25/16 12:35 Sample Type:	Received:	10/27/16 09:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.329 ± 0.226 (0.367)	pCi/L	11/09/16 07:03	13982-63-3	
Radium-228	EPA 9320	C:98% T:NA 0.783 ± 0.434 (0.795) C:71% T:89%	pCi/L	11/29/16 11:24	15262-20-1	1c
Total Radium	Total Radium Calculation	1.11 ± 0.660 (1.16)	pCi/L	11/30/16 08:33	7440-14-4	
Sample: FERB-2 PWS:	Lab ID: 302007 4 Site ID:	49004 Collected: 10/25/16 10:00 Sample Type:	Received:	10/27/16 09:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0667 ± 0.154 (0.496)	pCi/L	11/09/16 07:04	13982-63-3	
Radium-228	EPA 9320	C:68% T:NA 0.593 ± 0.394 (0.754) C:72% T:87%	pCi/L	11/29/16 11:24	15262-20-1	1c
Total Radium	Total Radium Calculation	0.593 ± 0.548 (1.25)	pCi/L	11/30/16 08:33	7440-14-4	
Sample: FB-2 PWS:	Lab ID: 302007 4 Site ID:	49005 Collected: 10/25/16 09:00 Sample Type:	Received:	10/27/16 09:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.177 ± 0.123 (0.515) C:79% T:NA	pCi/L	11/09/16 07:04	13982-63-3	
Radium-228	EPA 9320	0.954 ± 0.478 (0.838) C:75% T:80%	pCi/L	11/29/16 11:52	15262-20-1	1c

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30200749

Sample: FB-2 Lab ID: 30200749005 Collected: 10/25/16 09:00 Received: 10/27/16 09:30 Matrix: Water

PWS: Site ID: Sample Type:

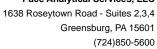
Act ± Unc (MDC) Carr Trac **Parameters** Method Units Analyzed CAS No. Qual Total Radium 0.954 ± 0.601 (1.35) pCi/L 11/30/16 08:33 7440-14-4

Total Radium Calculation

Lab ID: 30200749006 Matrix: Water Sample: Dup-2 Collected: 10/25/16 00:00 Received: 10/27/16 09:30

PWS: Site ID: Sample Type:

Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 0.121 ± 0.226 (0.518) Radium-226 pCi/L 11/09/16 07:04 13982-63-3 C:94% T:NA EPA 9320 Radium-228 $0.908 \pm 0.487 \quad (0.871)$ pCi/L 11/29/16 11:52 15262-20-1 C:73% T:78% Total Radium Total Radium 1.03 ± 0.713 (1.39) pCi/L 11/30/16 08:33 7440-14-4 Calculation





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200749

QC Batch: 239219 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30200749001, 30200749002, 30200749003, 30200749004, 30200749005, 30200749006

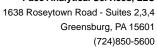
METHOD BLANK: 1175537 Matrix: Water

Associated Lab Samples: 30200749001, 30200749002, 30200749003, 30200749004, 30200749005, 30200749006

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 -0.0202 ± 0.0834 (0.245) C:99% T:NA pCi/L 11/09/16 07:10

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200749

QC Batch: 239882 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30200749001, 30200749002

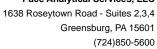
METHOD BLANK: 1178558 Matrix: Water

Associated Lab Samples: 30200749001, 30200749002

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.610 ± 0.398 (0.756) C:82% T:76% pCi/L 11/28/16 15:21

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





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30200749

QC Batch: 239884 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30200749003, 30200749004, 30200749005, 30200749006

METHOD BLANK: 1178563 Matrix: Water

Associated Lab Samples: 30200749003, 30200749004, 30200749005, 30200749006

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.600 ± 0.390 (0.728) C:71% T:84% pCi/L 11/29/16 11:51 1c

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.



QUALIFIERS

Project: Plant Hammond Pace Project No.: 30200749

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 239884

[1] Insufficient volume was available for a sample duplicate in batch 32407 for Ra-228 analysis by EPA 904.0. A LCS duplicate was prepared, however, it was inadvertently not spiked with Ra-228. The client was notified and gave permission to report samples from batch 32407 based on acceptable LCS recovery and MB results.

ANALYTE QUALIFIERS

Date: 12/05/2016 03:22 PM

Insufficient volume was available for a sample duplicate in batch 32407 for Ra-228 analysis by EPA 904.0. A LCS duplicate was prepared, however, it was inadvertently not spiked with Ra-228. The client was notified and gave permission to report samples from batch 32407 based on acceptable LCS recovery and MB results.

WO#:30200749

Chain of Custody

Pace Analytical *

Owner Received Date: Results Requested By: 11/28/2016	Requested Analysis	le	ito]	L '8	757	·'977	Preserved Containers E	nip	. Call LAB USE ONLY	O	× ×	× ×	×	×	> 000000000000000000000000000000000000					Date/Time Comments		これでプリー
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Own									Matrix	GW	GW	GW	M	X	GW					3y 🗻 🧢		
Plant Hammond			Road		5601	.5600							AZJ0727-04	AZJ0727-05	AZJ0727-06					Received By	11/11/11	
	actTo:	tsburgh.	eytown	4	urg, PA 1	724) 850-			me Lab I											Date/Time		
Workorder Name:	Subcontract To:	Pace - Pittsburgh	1638 Roseytown Road	Stes. 2,3,4	Greensburg, PA 15601	Phone (724) 850-5600			Collect Date/Time Lab ID	10/25/201612:30	10/25/201611:35	10/25/201612:35	10/25/201610:00	10/25/20169:00	10/25/20160:00					Da		
Ň								Sample	Туре	G	9	9	9	9	9							
Workorder: AZJ0727	Report To:	Betsy McDaniel	Pace Analytical Atlanta	110 Technology Parkway	Peachtree Corners, GA 30092	Phone (770)-734-4200			Item Sample ID	HGWC-18	HGWC-16	HGWC-17	FERB-2	FB-2	Dup-2					Fransfers Released By		-
	Repo	Bets	Pace	110.	Peac	Phor			Item	Ţ	2	က	4	5	9	7	∞	6	10	Tran		_

Sample Intact(Y)or	rovided on this COC	
Received on Ice Y of N	tion/name of the sampling site, sampler's name and signature may not be provided on this COC	s since this information is available in the owner laboratory.
Custody Seal Y or (N)	location/name of the sampling s	ıs is since this information is avai
ure on Receipt	***In order to maintain client confidentiality,	This chain of custody is considered complete as is sir
Cooler Temperature on Receipt	***In order to m	This chain of cus

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Pace Analytical CHAIN OF CUSTODY RECORD

CLIENT NAME

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

P F

PAGE:

5 - NaOHIZnAc, s6°C 6 - Na₂S₂O₃, s6°C 7 - s6°C not frozen 2 - H₂SO_{2, 2}6°C 3 - HNO₃ 4 - NaOH₃8°C Extra volume collected for lab Ra analysis OA/OC-REMARKS/ADDITIONAL INFORMATION L. LIQUID P. PRODUCT 1 + HCl, 48°C PRESERVATION St. - St. UDGE arnos - as S- SOIL A- AIR "MATRIX CODES: DW - DRINKING WATER SURFACE WATER WW - WASTEWATER GW - GROUNDWATER A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER STORM WATER P - PLASTIC WATER Entered into I SW. ST. W LAB# _1 ≪ @ NUMBER - o うしょ (/) i. OTHER DATE/TME DATETIME Ó OLENT, ANALYSIS REQUESTED COURIER # of Coolers (ozce/910e 94e-MS) Radium 226 & 228 (EPA 300.0 & SM 2540C) Cl' E' 20° 8 LD2 SAMPLE SHIPPED VIA: UPS. FED-EX Custody Sea: RELINQUISHED BY: (EPA 6020/7470) RELINQUISMED BY: n. VL& III :qqA TGS he9 alaleM CONTANCE TAPE Negosimismos. # of 002F4-2U20 (7) n laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGMC-18 HGWC-16 HGWC-17 FER8-2 Maria Padilla DUP FB-2 IDATE/TIME: 10/25/2016 14:00 DATE/TIME: Plant Hammond - AP 182 CCR CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: S × × 出 四日月日 \times × 0020 G. Jirak Array Pract No Ces MATRIX CODE: Joju Abraham REQUESTED COMPLETION DATE: GW SW GW SW SW 8 3 3 241 Ralph McGill Blvd SE 810185 SAMPLED BY AND TITLE: A. Shoredis 45: M. Rogers 47 PROJECT NAME/STATE Callection THME 12:30 11138 12:35 10:00 00:60 Atlanta, GA 30308 Georgia Power 404-506-7239 REPORT TO: PROJECT # Collection 10/25/16 10/25/16 10/25/16 10/25/16 10/25/18 10/25/16 DATE

20161025 Hammond COC.xlsx

	aition Upon Rec	eipt	Pitts	sbur	gn	
Face Analytical	Client Name:		Pa	ice	ocery; u	_ Project # 3020074
Courier: Fed Ex Tracking #: (08)2 Custody Seal on Cooler	<u>5100 0599</u>		_		al Pace Other	
					/et Blue Mone	
						₩ °C Final Temp: W/A °C
Temp should be above freez		4 4 1		00	restion rustor. 70	Tiller Temp. 747
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Chain of Custody Present		1			1.	The state of the s
Chain of Custody Filled Or	ut:	1			2.	
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Sampler Name & Signature	e on COC:	1			4.	
Sample Labels match CO0	D:	V			5.	
-Includes date/time/ID/A	Analysis Matrix: W	<u> </u>	'			
Samples Arrived within Ho		V		Ī	6.	
Short Hold Time Analysis			/		7.	,
Rush Turn Around Time I			/		8.	,
Sufficient Volume:		/			9.	
Correct Containers Used:		1			10.	
-Pace Containers Used:			1		1	
Containers Intact:					11.	
Filtered volume received for	Dissolved tests			/	12.	
All containers needing preservation					13 - 41	
All containers needing preserva compliance with EPA recomme		V			PH < 2	~
avecantianas VOA salifaras	TOO 000 BL "				Initial when	Date/time of
exceptions: VOA, coliform,	100, 0&G, Phenolics				completed KH	preservation
					preservative	
Headspace in VOA Vials (>	6mm):			/	14.	
rip Blank Present:	ŀ			/	15.	
rip Blank Custody Seals Pr				/		
Rad Aqueous Samples Scr	reened > 0.5 mrem/hr				Initial when completed:	Date: 10 -27 -16
lient Notification/ Resolut	ion:				And the second s	
Person Contacted:				Date/T	ime:	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.

Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample MSD I.D.

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL)

Sample Collection Date Sample MS I.D. Spike LD.

Sample Matrix Spike Control Assessment

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):

MSD Numerical Performance Indicator:

MS Numerical Performance Indicator

MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery:

MS Aliquot (L, g, F):

11/22/2016 32407 DW JLW Worklist: Matrix: Analyst: Date:

Ra-228

Test

0.600 0.375 0.728 3.14 N/A Pass MB Sample ID MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC; MB concentration: M/B Counting Uncertainty: MB MDC: Method Blank Assessment

LCSD32407 11/29/2016 16-027 25.954 0.20 0.808 6.422 0.462 0.384 19.46 0.395 LCSD (Y or N)7 LCS32407 11/29/2016 120.61% 16-027 25.955 0.20 0.808 6.426 0.463 751 Target Conc. (pCl/L, g, F): Uncertainty (Calculated): Percent Recovery: Count Date: Spike I.D.: Spike Concentration (pCI/mL): Aliquot·Volume (L, g, F): Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Numerical Performance Indicator: Volume Used (mL) Laboratory Control Sample Assessment

Fail Low* Ϋ́ ≸ Status vs Numerical Indicator: Status vs Recovery Duplicate Sample Assessment

sample IDs if other than ICS/LCSD in the space below. E∯ter Duplicate LCS32407 LCSD32407 0.815 0.384 0.395 15.947 181.42% 9 Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCl/L, g, F): Sample Duplicate Result Counting Uncertainty (pCl/L, g, F): Are sample and/or duplicate results below MDC? Duplicate Numerical Performance Indicator: Sample I.D.: Duplicate Sample I.D.

Sample I.D. Sample MS I.D.

MSD Status vs Recovery

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

٧Ž (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD; Duplicate Status vs RPD: Duplicate Status vs Numerical Indicator

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

Comments:

**Batch must be re-prepped due to LCSD failure.

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

US and WYB JLSO NOT SPILCED. CANNOT ASSESS PREOLSION CLIENT INFORMED AND GAVE PERMISSION REPORT BASED ON ACCEPTABLE

Ra-228 (R086-7 12Aug2016).xls

Ra-228 NELAC DW2 Printed: 12/1/2016 10:23 AM

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

11/22/2016 32406 DW Ra-228 JLW Worklist: Matrix: Test: Analyst: Date:

Face Analytical"

Sample Matrix Spike Control Assessment

Method Blank Assessment

Sample MS I.D.

Sample MSD I.D. Spike I.D.:

Sample Collection Date:

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Spike Volume Used in MS (mL):

Spike Volume Used in MSD (ml.)

MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F):

MS Aliquot (L, g, F); MS Target Conc.(pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result:

Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Duplicate Result:

Sample Result:

Spike uncertainty (calculated)

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

MSD Numerical Performance Indicator:

MS Numerical Performance Indicator.

MS Percent Recovery:

MSD Percent Recovery

MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:

MS Status vs Recovery.

MSD Status vs Recovery

MB Sample ID MB concentration: MB MDC: M/B Counting Uncertainty:

0.383 0.756 3.12 N/A Pass MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC:

Laboratory Control Sample Assessment

LCSD (Y or N)? LCS32406 11/28/2016 Count Date: Spike I.D.: Volume Used (mL):

LCSD32406

16-027 25.962 0.20 0.813 6.385 0.460 8.119 Spike Concentration (pCi/mL): Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F):

Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Numerical Performance Indicator: Percent Recovery: Uncertainty (Calculated): Status vs Numerical Indicator: Status vs Recovery

Duplicate Sample Assessment

Matrix Spike/Matrix Spike Duplicate Sample Assessment Enter Duplicate the space below sample IDs if LCS/LCSD in other than Duplicate Sample I.D. 30200749001DUP See Below ## 30200749001 1,763 0.390 2.026 0.427 Sample I.D.: Sample Result (pC/I/L, g, F): Sample Result Counting Uncertainty (pC/I/L, g, F): Sample Duplicate Result (pC/I/L, g, F):

-0.892 13.88% Ϋ́ Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):
Are sample and/or duplicate results below MDC? Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator: Duplicate RPD: Duplicate Status vs RPD:

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

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Sample I.D. Sample MS I.D. Sample Matrix Spike Result Sample MSD I.D. Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: 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

Comments:

16

Printed: 12/1/2016 10:23 AM Ra-228 NELAC DW2

1 of 1

Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

	Sample Matrix Spike Control Assessment	· ·		
JC2	11/8/2016	32294	DW	
Analyst:	Date:	Worklist:	Matrix:	

Test:

Sample Collection Date: Sample MS I.D. Sample MSD I.D. Spike I.D.: Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL):

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Method Blank Assessment		
	MB Sample ID	1175537
	MB concentration:	-0.020
	M/B Counting Uncertainty:	0.083
	MB MDC:	0.245
MB Numerio	MB Numerical Performance Indicator:	-0.47
MB Stat	MB Status vs Numerical Indicator:	A/N
	MB Status vs. MDC:	Pass

Count Date: Spike I.D.:

Laboratory Control Sample Assessment

Spike Concentration (pCi/mL): Volume Used (mL): Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated):

Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F):

Percent Recovery:

Numerical Performance Indicator:

NSD Target Conc. (D. G.). F. F. NSD Target Conc. (DCI/L. g. F.). Splike uncertainty (calculated) Sample Result Counting Uncertainty (DCI/L. g. F.). Sample Matrix Spike Result Counting Uncertainty (DCI/L. g. F.). Sample Matrix Spike Result Counting Uncertainty (DCI/L. g. F.). Sample Matrix Spike Duplicate Result MSD Numerical Performance Indicator. MSD Numerical Performance Indicator.
Pass I LCS32294 LCSD32294 119/2016 16-026 44-675 0.10 0.506 8.836 0.416 7.443

	Status vs Numerical Indicator: Status vs Decoverer	N/A Does		MS Status vs Reco
	Oratus vs Necovery.			Mod orang vs Red
Duplicate Sample Assessment				Matrix Spike/Matrix Spike Duplicate Sample Assessment
	Sample I.D.:	Sample I.D.: 30200749001 Enter Duplicate	Enter Duplicate	Samp
	Duplicate Sample I.D. 30200749001DUP sample IDs if	30200749001DUP	sample IDs if	Sample M
	Sample Result (pCi/L, g, F):	0.927	other than	Sample MS
Sample Result C	Sample Result Counting Uncertainty (pCi/L, g, F):	0.267	LCS/LCSD in the	Sample Matrix Spike F
Sami	Sample Duplicate Result (pCi/L, g, F):	1.134	space below.	Matrix Spike Result Counting Uncertainty (pCi/L,
Sample Duplicate Result C	Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.354		Sample Matrix Spike Duplicate F

le I.D. IS I.D.	D i.D. tesult: g, F):	(esult: g, F): cator	RPD: cator: RPD:
Sample I.D.	Sample MSD I.D. Sample Matrix Spike Result. Matrix Spike Result Counting Uncertainty (pCifl., g, F):	Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCl/L, g, F): Dunitrate Numerical Performance Indicator:	MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:

See Below ##

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC?

-0.917 20.13%

Duplicate RPD:

Duplicate Status vs RPD:

Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator:

Ϋ́

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

Comments:

Printed: 12/1/2016 10:22 AM TAR DW QC



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: AZL0282

December 19, 2016

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

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All test results relate only to the samples analyzed.



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 19, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-1	AZL0282-01	Water	12/06/16 10:20	12/07/16 12:00
HGWA-2	AZL0282-02	Water	12/06/16 10:20	12/07/16 12:00
HGWA-3	AZL0282-03	Water	12/06/16 11:50	12/07/16 12:00
HGWA-4	AZL0282-04	Water	12/06/16 12:52	12/07/16 12:00
FB-1	AZL0282-05	Water	12/06/16 12:10	12/07/16 12:00
FERB-1	AZL0282-06	Water	12/06/16 12:20	12/07/16 12:00
HGWC-7	AZL0282-07	Water	12/06/16 15:25	12/07/16 12:00
HGWC-8	AZL0282-08	Water	12/06/16 14:08	12/07/16 12:00
HGWC-9	AZL0282-09	Water	12/06/16 15:15	12/07/16 12:00
Dup-1	AZL0282-10	Water	12/06/16 00:00	12/07/16 12:00



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

Project: CCR Event

Report No.: AZL0282
Client ID: HGWA-1

Lab Number ID: AZL0282-01

Date/Time Sampled: 12/6/2016 10:20:00AM

Date/Time Received: 12/7/2016 12:00:00PM

December 19, 2016

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	377	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	5.4	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 15:28	6120316	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 15:28	6120316	RLC
Sulfate	59	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 08:23	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Barium	0.0304	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Boron	0.0211	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Calcium	105	25.0	1.55	mg/L	EPA 6020B		50	12/10/16 15:10	12/14/16 14:38	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:10	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:57	6120352	MTC



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

Report No.: AZL0282

Client ID: HGWA-2

Date/Time Sampled: 12/6/2016 10:20:00AM

Matrix: Water

December 19, 2016

Project: CCR Event

Lab Number ID: AZL0282-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	145	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	6.0	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:10	6120316	RLC
Fluoride	0.36	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:10	6120316	RLC
Sulfate	44	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:10	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Barium	0.108	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Beryllium	0.0002	0.0030	0.00008	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Boron	0.0326	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Calcium	18.2	2.50	0.155	mg/L	EPA 6020B		5	12/10/16 15:10	12/14/16 14:44	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Cobalt	0.0184	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:18	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:00	6120352	MTC



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

Report No.: AZL0282

Client ID: HGWA-3

Date/Time Sampled: 12/6/2016 11:50:00AM

Matrix: Water

December 19, 2016

Project: CCR Event

Lab Number ID: AZL0282-03

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	285	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	7.2	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:32	6120316	RLC
Fluoride	0.21	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 16:32	6120316	RLC
Sulfate	43	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:32	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Barium	0.127	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Boron	0.0085	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Calcium	74.9	5.00	0.311	mg/L	EPA 6020B		10	12/10/16 15:10	12/14/16 14:50	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Lithium	0.0033	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:25	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:07	6120352	MTC



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

Report No.: AZL0282

Client ID: HGWA-4

Date/Time Sampled: 12/6/2016 12:52:00PM

Matrix: Water

December 19, 2016

Project: CCR Event

Lab Number ID: AZL0282-04

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	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	4.5	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 06:40	6120316	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 06:40	6120316	RLC
Sulfate	13	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 06:40	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Barium	0.0334	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Boron	0.0158	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Calcium	80.0	5.00	0.311	mg/L	EPA 6020B		10	12/10/16 15:10	12/14/16 14:56	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Lithium	0.0046	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 16:33	6120281	CSW
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	12/13/16 09:50	12/13/16 14:09	6120352	MTC



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

Report No.: AZL0282

Client ID: FB-1

Date/Time Sampled: 12/6/2016 12:10:00PM

Matrix: Water

December 19, 2016

Project: CCR Event

Lab Number ID: AZL0282-05

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	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	0.05	0.25	0.01	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/12/16 18:28	6120316	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 18:28	6120316	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 18:28	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 16:40	6120281	CSW
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	12/13/16 09:50	12/13/16 14:11	6120352	MTC



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

Report No.: AZL0282

Client ID: FERB-1

Date/Time Sampled: 12/6/2016 12:20:00PM

Matrix: Water

December 19, 2016

Project: CCR Event

Lab Number ID: AZL0282-06

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	75	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/12/16 18:48	6120316	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 18:48	6120316	RLC
Sulfate	0.06	1.0	0.05	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/12/16 18:48	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Boron	0.0184	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 13:55	6120325	KLH
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	12/13/16 09:50	12/13/16 14:14	6120352	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0282 Client ID: HGWC-7

Date/Time Sampled: 12/6/2016 3:25:00PM

Matrix: Water

Project: CCR Event

Lab Number ID: AZL0282-07

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	492	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	51	2.5	0.14	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 08:44	6120316	RLC
Fluoride	0.26	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/12/16 19:09	6120316	RLC
Sulfate	110	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 08:44	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Barium	0.0752	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Boron	1.06	0.0400	0.0064	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Calcium	104	25.0	1.55	mg/L	EPA 6020B		50	12/12/16 16:35	12/17/16 02:19	6120325	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Molybdenum	0.0365	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Lithium	0.0026	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:01	6120325	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:16	6120352	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZL0282

Client ID: HGWC-8

Date/Time Sampled: 12/6/2016 2:08:00PM

Matrix: Water

December 19, 2016

Project: CCR Event

Lab Number ID: AZL0282-08

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	733	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	100	2.5	0.14	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:06	6120316	RLC
Fluoride	0.76	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 20:52	6120316	RLC
Sulfate	250	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:06	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Barium	0.0845	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Beryllium	ND	0.0030	80000.0	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Boron	2.06	0.0400	0.0064	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Cadmium	0.0017	0.0010	0.00007	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Calcium	142	25.0	1.55	mg/L	EPA 6020B		50	12/12/16 16:35	12/17/16 02:24	6120325	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Cobalt	0.0026	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Molybdenum	0.520	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Selenium	0.0024	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Lithium	0.0032	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:07	6120325	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:18	6120352	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZL0282 Project: CCR Event

Client ID: HGWC-9 Lab Number ID: AZL0282-09

Date/Time Sampled: 12/6/2016 3:15:00PM Date/Time Received: 12/7/2016 12:00:00PM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	899	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	150	2.5	0.14	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:28	6120316	RLC
Fluoride	0.31	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 21:13	6120316	RLC
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:28	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Barium	0.128	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Boron	2.15	0.0400	0.0064	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Calcium	181	25.0	1.55	mg/L	EPA 6020B		50	12/12/16 16:35	12/17/16 02:30	6120325	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Cobalt	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Molybdenum	0.0236	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Selenium	0.0037	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Lithium	0.0050	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:13	6120325	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:40	6120353	MTC

December 19, 2016



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZL0282

Client ID: Dup-1

Date/Time Sampled: 12/6/2016 12:00:00AM

Matrix: Water

December 19, 2016

Project: CCR Event

Lab Number ID: AZL0282-10

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	929	25	10	mg/L	SM 2540 C		1	12/10/16 18:16	12/10/16 18:16	6120287	JPT
Inorganic Anions											
Chloride	160	2.5	0.14	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:50	6120316	RLC
Fluoride	0.31	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 21:34	6120316	RLC
Sulfate	240	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 09:50	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Barium	0.127	0.0100	0.0004	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Beryllium	ND	0.0030	80000.0	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Boron	2.13	0.0400	0.0064	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Calcium	181	25.0	1.55	mg/L	EPA 6020B		50	12/12/16 16:35	12/17/16 02:36	6120325	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Cobalt	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Molybdenum	0.0228	0.0100	0.0017	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Selenium	0.0036	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Lithium	0.0049	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/12/16 16:35	12/13/16 14:19	6120325	KLH
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 14:42	6120353	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZL0282

General Chemistry - Quality Control

December 19, 2016

	Result	RL	MDL	Units	Spike	Source		%REC		RPD	
Analyte	Result	KL .	IVIDL	Ullits	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 6120286 - SM 2540 C											
Blank (6120286-BLK1)						Prepar	ed & Analy	/zed: 12/1	0/16		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120286-BS1)						Prepar	ed & Analy	/zed: 12/1	0/16		
Total Dissolved Solids	392	25	10	mg/L	400.00		98	84-108			
Duplicate (6120286-DUP1)		So	ırce: AZL02	281-03		Prepar	ed & Analy	/zed: 12/1	0/16		
Total Dissolved Solids	605	25	10	mg/L		597			1	10	
Duplicate (6120286-DUP2)		So	ırce: AZL02	281-04		Prepar	ed & Analy	/zed: 12/1	0/16		
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Batch 6120287 - SM 2540 C											
Blank (6120287-BLK1)						Prepar	ed & Analy	/zed: 12/1	0/16		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120287-BS1)						Prepar	ed & Anal	/zed: 12/1	0/16		
Total Dissolved Solids	412	25	10	mg/L	400.00	- 1	103	84-108			
Duplicate (6120287-DUP1)		So	ırce: AZL02	282-08		Prepar	ed & Analy	/zed: 12/1	0/16		
Total Dissolved Solids	739	25	10	mg/L		733		,	0.8	10	
Duplicate (6120287-DUP2)		So	ırce: AZL02	284-08		Prenar	ed & Analy	/zed: 12/1	0/16		
Total Dissolved Solids	ND	25	10	mg/L		ND	ou arman	,,	· · · ·	10	



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZL0282

December 19, 2016

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120316 - EPA 300.0											
Blank (6120316-BLK1)						Prepare	ed & Analy	yzed: 12/12	2/16		
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 (6120316-BS1)						Prepare	ed & Analy	yzed: 12/12	2/16		
Chloride	9.84	0.25	0.01	mg/L	10.010		98	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.020		101	90-110			
Sulfate	9.92	1.0	0.05	mg/L	10.020		99	90-110			
Matrix Spike (6120316-MS1)		Sou	ırce: AZL02	81-01		Prepare	ed & Analy	yzed: 12/12	2/16		
Chloride	10.9	0.25	0.01	mg/L	10.010	1.05	99	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.020	0.11	102	90-110			
Sulfate	14.3	1.0	0.05	mg/L	10.020	4.72	96	90-110			
Matrix Spike (6120316-MS2)		Sou	ırce: AZL02	82-01		Prepare	ed: 12/12/	16 Analyz	ed: 12/13	/16	
Chloride	15.5	0.25	0.01	mg/L	10.010	5.38	101	90-110			
Fluoride	10.9	0.30	0.02	mg/L	10.020	0.11	108	90-110			
Sulfate	62.2	1.0	0.05	mg/L	10.020	58.4	38	90-110			QM-02
Matrix Spike Dup (6120316-MSD1)		Sou	ırce: AZL02	81-01		Prepare	ed & Analy	yzed: 12/12	2/16		
Chloride	11.0	0.25	0.01	mg/L	10.010	1.05	100	90-110	0.7	15	
Fluoride	10.3	0.30	0.02	mg/L	10.020	0.11	101	90-110	0.3	15	
Sulfate	14.2	1.0	0.05	mg/L	10.020	4.72	95	90-110	0.4	15	



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 19, 2016

Report No.: AZL0282

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120281 - EPA 3005A											
Blank (6120281-BLK1)						Prepare	ed: 12/10/	16 Analyz	ed: 12/12/	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							
				Ü							
LCS (6120281-BS1)						Prepare		16 Analyz	ed: 12/12/	16	
Antimony	0.0986	0.0030	0.0008	mg/L	0.10000		99	80-120			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000		102	80-120			
Barium	0.0971	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000		104	80-120			
Boron	1.04	0.0400	0.0064	mg/L	1.0000		104	80-120			
Cadmium	0.0986	0.0010	0.00007	mg/L	0.10000		99	80-120			
Calcium	0.954	0.500	0.0311	mg/L	1.0000		95	80-120			
Chromium	0.0987	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Copper	0.100	0.0250	0.0005	mg/L	0.10000		100	80-120			
Lead	0.0987	0.0050	0.0001	mg/L	0.10000		99	80-120			
Molybdenum	0.100	0.0100	0.0017	mg/L	0.10000		100	80-120			
Nickel	0.102	0.0100	0.0006	mg/L	0.10000		102	80-120			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000		102	80-120			
Silver	0.0987	0.0100	0.0005	mg/L	0.10000		99	80-120			
Thallium	0.0985	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000		102	80-120			
Zinc	0.101	0.0100	0.0021	mg/L	0.10000		101	80-120			
Lithium	0.102	0.0500	0.0021	mg/L	0.10000		102	80-120			



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

Report No.: AZL0282

Metals, Total - Quality Control

December 19, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120281 - EPA 3005A											
Matrix Spike (6120281-MS1)		Soi	urce: AZL02	30-01		Prepar	ed: 12/10/	16 Analyz	ed: 12/12	/16	
Antimony	0.103	0.0030	0.0008	mg/L	0.10000	ND	103	75-125			
Arsenic	0.108	0.0050	0.0016	mg/L	0.10000	0.0044	104	75-125			
Barium	0.161	0.0100	0.0004	mg/L	0.10000	0.0659	96	75-125			
Beryllium	0.102	0.0030	0.00008	mg/L	0.10000	ND	102	75-125			
Boron	1.54	0.0400	0.0064	mg/L	1.0000	0.515	103	75-125			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	57.3	5.00	0.311	mg/L	1.0000	55.4	186	75-125			QM-02
Chromium	0.0997	0.0100	0.0009	mg/L	0.10000	ND	100	75-125			
Cobalt	0.0972	0.0100	0.0005	mg/L	0.10000	ND	97	75-125			
Copper	0.0959	0.0250	0.0005	mg/L	0.10000	0.0007	95	75-125			
Lead	0.0951	0.0050	0.0001	mg/L	0.10000	ND	95	75-125			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000	0.0049	104	75-125			
Nickel	0.0985	0.0100	0.0006	mg/L	0.10000	0.0032	95	75-125			
Selenium	0.0995	0.0100	0.0010	mg/L	0.10000	ND	100	75-125			
Silver	0.0992	0.0100	0.0005	mg/L	0.10000	ND	99	75-125			
Thallium	0.0951	0.0010	0.0002	mg/L	0.10000	ND	95	75-125			
Vanadium	0.100	0.0100	0.0071	mg/L	0.10000	ND	100	75-125			
Zinc	0.0984	0.0100	0.0021	mg/L	0.10000	ND	98	75-125			
Lithium	0.0996	0.0500	0.0021	mg/L	0.10000	ND	100	75-125			
Matrix Spike Dup (6120281-MSD1)		Soi	urce: AZL02:	30-01		Prenar	ed: 12/10/	16 Analyz	ed: 12/12	/16	
Antimony	0.109	0.0030	0.0008	mg/L	0.10000	ND	109	75-125	6	20	
Arsenic	0.109	0.0050	0.0016	mg/L	0.10000	0.0044	104	75-125	0.3	20	
Barium	0.163	0.0100	0.0004	mg/L	0.10000	0.0659	98	75-125	1	20	
Beryllium	0.105	0.0030	0.00008	mg/L	0.10000	ND	105	75-125	3	20	
Boron	1.58	0.0400	0.0064	mg/L	1.0000	0.515	106	75-125	2	20	
Cadmium	0.108	0.0010	0.00007	mg/L	0.10000	ND	108	75-125	8	20	
Calcium	56.6	5.00	0.311	mg/L	1.0000	55.4	121	75-125	1	20	
Chromium	0.101	0.0100	0.0009	mg/L	0.10000	ND	101	75-125	2	20	
Cobalt	0.0987	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	2	20	
Copper	0.0976	0.0250	0.0005	mg/L	0.10000	0.0007	97	75-125	2	20	
Lead	0.0987	0.0050	0.0001	mg/L	0.10000	ND	99	75-125	4	20	
Molybdenum	0.117	0.0100	0.0017	mg/L	0.10000	0.0049	112	75-125 75-125	7	20	
Nickel	0.100	0.0100	0.0006	mg/L	0.10000	0.0049	97	75-125 75-125	2	20	
Selenium	0.101	0.0100	0.0000	mg/L	0.10000	0.0032 ND	101	75-125 75-125	1	20	
Silver	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125 75-125	6	20	
Thallium	0.0992	0.0010	0.0003	_	0.10000	ND	99	75-125 75-125	4	20	
	0.0992	0.0010	0.0002	mg/L							
Vanadium	0.101	0.0100		mg/L	0.10000	ND	101	75-125	1	20	
Zinc	0.101	0.0100	0.0021	mg/L	0.10000	ND	101	75-125	2	20	
Lithium	0.104	0.0500	0.0021	mg/L	0.10000	ND	104	75-125	4	20	



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 19, 2016

Report No.: AZL0282

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120281 - EPA 3005A											
Post Spike (6120281-PS1)		Soi	urce: AZL02	30-01		Prepar	ed: 12/10/	16 Analyz	ed: 12/12/	16	
Antimony	105			ug/L	100.00	0.500	105	80-120			
Arsenic	110			ug/L	100.00	4.43	106	80-120			
Barium	163			ug/L	100.00	65.9	97	80-120			
Beryllium	108			ug/L	100.00	0.0100	108	80-120			
Boron	1600			ug/L	1000.0	515	108	80-120			
Cadmium	106			ug/L	100.00	0.0100	106	80-120			
Calcium	56500			ug/L	1000.0	55400	106	80-120			
Chromium	103			ug/L	100.00	0.510	103	80-120			
Cobalt	101			ug/L	100.00	0.370	100	80-120			
Copper	99.7			ug/L	100.00	0.740	99	80-120			
Lead	99.6			ug/L	100.00	0.0300	100	80-120			
Molybdenum	116			ug/L	100.00	4.93	111	80-120			
Nickel	103			ug/L	100.00	3.25	100	80-120			
Selenium	104			ug/L	100.00	-0.870	104	80-120			
Silver	104			ug/L	100.00	0.00	104	80-120			
Thallium	99.6			ug/L	100.00	0.0400	100	80-120			
Vanadium	103			ug/L	100.00	1.43	101	80-120			
Zinc	103			ug/L	100.00	1.98	101	80-120			
Lithium	106			ug/L	100.00	1.33	105	80-120			
Batch 6120325 - EPA 3005A											
Blank (6120325-BLK1)						Prepar	ed: 12/12/	16 Analyz	ed: 12/13/	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							
	ND	0.0010		_							
Thallium		0.0010	0.0002	mg/L							



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

Report No.: AZL0282

December 19, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120325 - EPA 3005A											
Blank (6120325-BLK1)						Prepare	ed: 12/12/	16 Analyze	ed: 12/13/	16	
Zinc	0.0025	0.0100	0.0021	mg/L		'					J
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6120325-BS1)						Prepare	ed: 12/12/	16 Analyze	ed: 12/13/	16	
Antimony	0.105	0.0030	0.0008	mg/L	0.10000		105	80-120			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000		102	80-120			
Barium	0.103	0.0100	0.0004	mg/L	0.10000		103	80-120			
Beryllium	0.108	0.0030	0.00008	mg/L	0.10000		108	80-120			
Boron	1.10	0.0400	0.0064	mg/L	1.0000		110	80-120			
Cadmium	0.106	0.0010	0.00007	mg/L	0.10000		106	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	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Copper	0.104	0.0250	0.0005	mg/L	0.10000		104	80-120			
Lead	0.102	0.0050	0.0001	mg/L	0.10000		102	80-120			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000		109	80-120			
Nickel	0.106	0.0100	0.0006	mg/L	0.10000		106	80-120			
Selenium	0.104	0.0100	0.0010	mg/L	0.10000		104	80-120			
Silver	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000		102	80-120			
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000		106	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			
Matrix Spike (6120325-MS1)		Sou	ırce: AZL028	32-07		Prepare	ed: 12/12/	16 Analyze	ed: 12/13/	16	
Antimony	0.108	0.0030	0.0008	mg/L	0.10000	ND	108	75-125			
Arsenic	0.106	0.0050	0.0016	mg/L	0.10000	ND	106	75-125			
Barium	0.174	0.0100	0.0004	mg/L	0.10000	0.0752	99	75-125			
Beryllium	0.113	0.0030	0.00008	mg/L	0.10000	ND	113	75-125			
Boron	2.19	0.0400	0.0064	mg/L	1.0000	1.06	114	75-125			
Cadmium	0.109	0.0010	0.00007	mg/L	0.10000	0.0002	109	75-125			
Calcium	102	25.0	1.55	mg/L	1.0000	104	NR	75-125			QM-02
Chromium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	0.0009	101	75-125			
Copper	0.0998	0.0250	0.0005	mg/L	0.10000	0.0006	99	75-125			
Lead	0.100	0.0050	0.0001	mg/L	0.10000	0.0001	100	75-125			
Molybdenum	0.149	0.0100	0.0017	mg/L	0.10000	0.0365	113	75-125			
Nickel	0.105	0.0100	0.0006	mg/L	0.10000	0.0053	99	75-125			
Selenium	0.107	0.0100	0.0010	mg/L	0.10000	ND	107	75-125			
Silver	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125			



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

Report No.: AZL0282

December 19, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120325 - EPA 3005A											
Matrix Spike (6120325-MS1)		Sou	ırce: AZL02	82-07		Prepar	ed: 12/12/	16 Analyz	ed: 12/13/	/16	
Thallium	0.102	0.0010	0.0002	mg/L	0.10000	ND	102	75-125			
Vanadium	0.109	0.0100	0.0071	mg/L	0.10000	ND	109	75-125			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0032	102	75-125			
Lithium	0.111	0.0500	0.0021	mg/L	0.10000	0.0026	108	75-125			
Matrix Spike Dup (6120325-MSD1)		Sou	ırce: AZL02	82-07		Prepar	ed: 12/12/	16 Analyz	ed: 12/13/	/16	
Antimony	0.109	0.0030	0.0008	mg/L	0.10000	ND	109	75-125	0.5	20	
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000	ND	104	75-125	1	20	
Barium	0.177	0.0100	0.0004	mg/L	0.10000	0.0752	102	75-125	2	20	
Beryllium	0.116	0.0030	0.00008	mg/L	0.10000	ND	116	75-125	3	20	
Boron	2.24	0.0400	0.0064	mg/L	1.0000	1.06	119	75-125	2	20	
Cadmium	0.108	0.0010	0.00007	mg/L	0.10000	0.0002	108	75-125	8.0	20	
Calcium	103	25.0	1.55	mg/L	1.0000	104	NR	75-125	0.5	20	QM-02
Chromium	0.103	0.0100	0.0009	mg/L	0.10000	ND	103	75-125	0.5	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	0.0009	102	75-125	8.0	20	
Copper	0.0996	0.0250	0.0005	mg/L	0.10000	0.0006	99	75-125	0.1	20	
Lead	0.101	0.0050	0.0001	mg/L	0.10000	0.0001	101	75-125	8.0	20	
Molybdenum	0.149	0.0100	0.0017	mg/L	0.10000	0.0365	113	75-125	0.04	20	
Nickel	0.107	0.0100	0.0006	mg/L	0.10000	0.0053	102	75-125	2	20	
Selenium	0.108	0.0100	0.0010	mg/L	0.10000	ND	108	75-125	0.6	20	
Silver	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125	1	20	
Thallium	0.104	0.0010	0.0002	mg/L	0.10000	ND	104	75-125	1	20	
Vanadium	0.109	0.0100	0.0071	mg/L	0.10000	ND	109	75-125	0.3	20	
Zinc	0.107	0.0100	0.0021	mg/L	0.10000	0.0032	104	75-125	2	20	
Lithium	0.114	0.0500	0.0021	mg/L	0.10000	0.0026	112	75-125	3	20	
Post Spike (6120325-PS1)		Sou	ırce: AZL02	82-07		Prepar	ed: 12/12/	16 Analyz	ed: 12/13/	/16	
Antimony	101			ug/L	100.00	0.150	101	80-120			
Arsenic	101			ug/L	100.00	0.750	100	80-120			
Barium	170			ug/L	100.00	75.2	95	80-120			
Beryllium	110			ug/L	100.00	0.0200	110	80-120			
Boron	2140			ug/L	1000.0	1060	109	80-120			
Cadmium	104			ug/L	100.00	0.190	103	80-120			
Calcium	101000			ug/L	1000.0	104000	NR	80-120			QM-02
Chromium	97.9			ug/L	100.00	-3.87	98	80-120			
Cobalt	96.3			ug/L	100.00	0.910	95	80-120			
Copper	94.1			ug/L	100.00	0.630	93	80-120			
Lead	96.7			ug/L	100.00	0.140	97	80-120			
Molybdenum	144			ug/L	100.00	36.5	107	80-120			
Nickel	100			ug/L	100.00	5.29	95	80-120			



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

Report No.: AZL0282

December 19, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120325 - EPA 3005A											
Post Spike (6120325-PS1)		Soi	urce: AZL028	82-07		Prepare	ed: 12/12/	16 Analyz	ed: 12/13/	′16	
Selenium	102			ug/L	100.00	0.770	101	80-120			
Silver	99.8			ug/L	100.00	0.0100	100	80-120			
Thallium	99.7			ug/L	100.00	0.0400	100	80-120			
Vanadium	106			ug/L	100.00	3.17	102	80-120			
Zinc	100			ug/L	100.00	3.24	97	80-120			
Lithium	109			ug/L	100.00	2.55	107	80-120			
Batch 6120352 - EPA 7470A											
Blank (6120352-BLK1)						Prepare	ed & Analy	/zed: 12/1	3/16		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6120352-BS1)						Prepare	ed & Analy	/zed: 12/1:	3/16		
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			
Matrix Spike (6120352-MS1)		Source: AZL0281-07						/zed: 12/1:	3/16		
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6120352-MSD1)	Source: AZL0281-07						ed & Analy	/zed: 12/1:	3/16		
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	4	20	
Post Spike (6120352-PS1)		Soi	urce: AZL028	81-07		Prepare	ed & Analy	/zed: 12/1:	3/16		
Mercury	1.67			ug/L	1.6667	0.0177	99	80-120			
Batch 6120353 - EPA 7470A											
Blank (6120353-BLK1)						Prepare	ed & Analy	/zed: 12/1:	3/16		
Mercury	ND	0.00050	0.000041	mg/L							



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 19, 2016

Report No.: AZL0282

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120353 - EPA 7470A											
LCS (6120353-BS1)						Prepare	ed & Anal	yzed: 12/1;	3/16		
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			
Matrix Spike (6120353-MS1)		Soi	urce: AZL028	34-06		Prepare	ed & Anal	yzed: 12/1:	3/16		
Mercury	0.00250	0.00050	0.000041	mg/L	2.5000E-3	0.00008	97	75-125			
Matrix Spike Dup (6120353-MSD1)		Soi	urce: AZL028	34-06		Prepare	ed & Anal	yzed: 12/1:	3/16		
Mercury	0.00244	0.00050	0.000041	mg/L	2.5000E-3	0.00008	94	75-125	2	20	
Post Spike (6120353-PS1)		Soi	urce: AZL028	34-06		Prepare	ed & Anal	yzed: 12/1:	3/16		
Mercury	1.73			ug/L	1.6667	0.0524	101	80-120			



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 19, 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.

Huff - 2016 1206-01

Pace Analytical Pace Analytical Services, Inc.

Pace Analytical Services, Inc.

110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092

(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

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Comparison	Figure F	CLIENT NAME:						ľ	NAI YSI	ANAI YSIS BEOI IESTED		-	CONTAINED TYPE	
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f 24														



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

LOG-IN CHECKLIST

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AZL0282

Date Received: 12/07/16 12:00 **Logged In By:** Mohammad M. Rahman

OBSERVATIONS

#Samples: 10 **#Containers:** 31

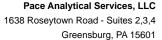
Minimum Temp(C): 1.0 Maximum Temp(C): 1.0 Custody Seal(s) Used: Yes

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:

Printed: 12/8/2016 10:19:23AM



(724)850-5600



January 11, 2017

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30204834

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on December 08, 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

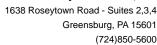
Sugnely Sellins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond Pace Project No.: 30204834

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

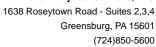
Rhode Island Certification #: 65-00282 South Dakota Certification

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

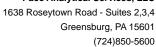




SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30204834

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30204834001	HGWA-1	Water	12/06/16 10:20	12/08/16 10:20
30204834002	HGWA-2	Water	12/06/16 10:20	12/08/16 10:20
30204834003	HGWA-3	Water	12/06/16 11:50	12/08/16 10:20
30204834004	HGWA-4	Water	12/06/16 12:52	12/08/16 10:20
30204834005	FB-1	Water	12/06/16 12:10	12/08/16 10:20
30204834006	FERB-1	Water	12/06/16 12:20	12/08/16 10:20
30204834007	HGWC-7	Water	12/06/16 15:25	12/08/16 10:20
30204834008	HGWC-8	Water	12/06/16 14:08	12/08/16 10:20
30204834009	HGWC-9	Water	12/06/16 15:15	12/08/16 10:20
30204834010	Dup-1	Water	12/06/16 00:00	12/08/16 10:20

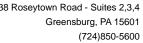




SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30204834

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30204834001	HGWA-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204834002	HGWA-2	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204834003	HGWA-3	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204834004	HGWA-4	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204834005	FB-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204834006	FERB-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204834007	HGWC-7	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204834008	HGWC-8	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204834009	HGWC-9	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204834010	Dup-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30204834

Pace Project No.: 30204834					
Sample: HGWA-1	Lab ID: 302048	34001 Collected: 12/06/16 10:20	Received:	12/08/16 10:20 Matrix:	Water
PWS:	Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed CA	S No. Qual
Radium-226	EPA 9315	0.0715 ± 0.110 (0.240)	pCi/L	12/19/16 10:06 1398	2-63-3
Radium-228	EPA 9320	C:91% T:NA 0.372 ± 0.358 (0.732) C:72% T:83%	pCi/L	01/08/17 13:29 1526	2-20-1
Total Radium	Total Radium Calculation	0.444 ± 0.468 (0.972)	pCi/L	01/11/17 16:00 7440	-14-4
Sample: HGWA-2	Lab ID: 302048	34002 Collected: 12/06/16 10:20	Received:	12/08/16 10:20 Matrix:	Water
PWS:	Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed CA	S No. Qual
Radium-226	EPA 9315	0.153 ± 0.139 (0.262) C:90% T:NA	pCi/L	12/19/16 10:17 1398	2-63-3
Radium-228	EPA 9320	0.588 ± 0.383 (0.726) C:79% T:80%	pCi/L	01/08/17 13:29 1526	2-20-1
Total Radium	Total Radium Calculation	0.741 ± 0.522 (0.988)	pCi/L	01/11/17 16:00 7440	-14-4
Sample: HGWA-3	Lab ID: 302048		Received:	12/08/16 10:20 Matrix:	Water
PWS:	Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed CA	S No. Qual
Radium-226	EPA 9315	0.0531 ± 0.0967 (0.220) C:96% T:NA	pCi/L	12/19/16 10:07 1398	2-63-3
Radium-228	EPA 9320	0.752 ± 0.395 (0.691) C:75% T:82%	pCi/L	01/08/17 13:29 1526	2-20-1
Total Radium	Total Radium Calculation	0.805 ± 0.492 (0.911)	pCi/L	01/11/17 16:00 7440	-14-4
Sample: HGWA-4	Lab ID: 302048	34004 Collected: 12/06/16 12:52	Received:	12/08/16 10:20 Matrix:	Water
PWS:	Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed CA	S No. Qual
Radium-226	EPA 9315	0.111 ± 0.149 (0.319) C:81% T:NA	pCi/L	12/19/16 10:08 1398	2-63-3
Radium-228	EPA 9320	0.814 ± 0.410 (0.695) C:74% T:77%	pCi/L	01/08/17 13:29 1526	2-20-1
Total Radium	Total Radium Calculation	0.925 ± 0.559 (1.01)	pCi/L	01/11/17 16:00 7440	-14-4
Sample: FB-1 PWS:	Lab ID: 302048 Site ID:	34005 Collected: 12/06/16 12:10 Sample Type:	Received:	12/08/16 10:20 Matrix:	Water
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed CA	S No. Qual
Radium-226	EPA 9315	-0.0259 ± 0.0768 (0.250)	pCi/L	12/19/16 10:08 1398	
Radium-228	EPA 9320	C:81% T:NA 0.405 ± 0.410 (0.845) C:69% T:79%	pCi/L	01/08/17 13:29 1526	

REPORT OF LABORATORY ANALYSIS

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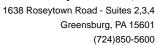


ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30204834 Sample: FB-1 Lab ID: 30204834005 Collected: 12/06/16 12:10 Received: 12/08/16 10:20 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Total Radium Total Radium 0.405 ± 0.487 (1.10) pCi/L 01/11/17 16:00 7440-14-4 Calculation Collected: 12/06/16 12:20 Sample: FERB-1 Lab ID: 30204834006 Received: 12/08/16 10:20 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.109 \pm 0.131 \quad (0.272)$ Radium-226 pCi/L 12/19/16 10:08 13982-63-3 C:89% T:NA Radium-228 EPA 9320 0.504 ± 0.377 pCi/L 01/08/17 13:30 15262-20-1 C:74% T:77% Total Radium Total Radium 0.613 ± 0.508 (1.00) pCi/L 01/11/17 16:00 7440-14-4 Calculation Sample: HGWC-7 Lab ID: 30204834007 Collected: 12/06/16 15:25 Received: 12/08/16 10:20 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 0.101 ± 0.117 (0.236) Radium-226 12/19/16 10:13 13982-63-3 pCi/L C:92% T:NA 1.90 ± 0.554 (0.589) Radium-228 EPA 9320 pCi/L 01/08/17 13:30 15262-20-1 C:75% T:81% Total Radium Total Radium 2.00 ± 0.671 (0.825) pCi/L 01/11/17 16:00 7440-14-4 Calculation Lab ID: 30204834008 Sample: HGWC-8 Collected: 12/06/16 14:08 Received: 12/08/16 10:20 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 0.370 ± 0.172 (0.173) Radium-226 pCi/L 12/19/16 10:13 13982-63-3 C:97% T:NA EPA 9320 $0.401 \pm 0.376 \quad (0.765)$ Radium-228 pCi/L 01/08/17 17:00 15262-20-1 C:70% T:80% Total Radium Total Radium $0.771 \pm 0.548 \quad (0.938)$ pCi/L 01/11/17 16:00 7440-14-4 Calculation Sample: HGWC-9 Lab ID: 30204834009 Collected: 12/06/16 15:15 Received: 12/08/16 10:20 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed Radium-226 EPA 9315 $0.126 \pm 0.121 \quad (0.228)$ 12/19/16 10:13 13982-63-3 pCi/L C:99% T:NA EPA 9320 -0.170 ± 0.301 (0.751) Radium-228 pCi/L 01/08/17 17:00 15262-20-1 C:71% T:78% Total Radium pCi/L Total Radium $0.126 \pm 0.422 \quad (0.979)$ 01/11/17 16:00 7440-14-4

REPORT OF LABORATORY ANALYSIS

Calculation

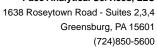




ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30204834

Sample: Dup-1 PWS:	Lab ID: 30204 Site ID:	334010 Collected: 12/06/16 00:00 Sample Type:	Received:	12/08/16 10:20	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.109 ± 0.135 (0.283) C:95% T:NA	pCi/L	12/19/16 10:13	3 13982-63-3	
Radium-228	EPA 9320	0.366 ± 0.311 (0.618) C:74% T:86%	pCi/L	01/08/17 17:00	0 15262-20-1	
Total Radium	Total Radium Calculation	$0.475 \pm 0.446 (0.901)$	pCi/L	01/11/17 16:00	7440-14-4	





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30204834

QC Batch: 243001 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30204834007, 30204834008, 30204834009, 30204834010

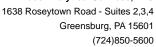
METHOD BLANK: 1195275 Matrix: Water

Associated Lab Samples: 30204834007, 30204834008, 30204834009, 30204834010

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.0582 ± 0.0923 (0.202) C:97% T:NA pCi/L 12/19/16 10:13

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30204834

QC Batch: 243003 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30204834001, 30204834002, 30204834003, 30204834004, 30204834005, 30204834006, 30204834007,

30204834008, 30204834009, 30204834010

METHOD BLANK: 1195281 Matrix: Water

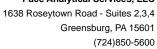
Associated Lab Samples: 30204834001, 30204834002, 30204834003, 30204834004, 30204834005, 30204834006, 30204834007,

30204834008, 30204834009, 30204834010

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.462 ± 0.350 (0.678) C:76% T:78% pCi/L 01/08/17 13:29

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30204834

QC Batch: 243000 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30204834001, 30204834002, 30204834003, 30204834004, 30204834005, 30204834006

METHOD BLANK: 1195272 Matrix: Water

Associated Lab Samples: 30204834001, 30204834002, 30204834003, 30204834004, 30204834005, 30204834006

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.0698 ± 0.0862 (0.168) C:97% T:NA pCi/L 12/19/16 09:55

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



QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30204834

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

Date: 01/11/2017 05:22 PM

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.

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Pace Analytical"

O	Workorder: AZL0282	>	Workorder Name:	Plant Hammond	Own	Owner Received Date:		Results Requested By: 1/6/2017	
Deb Deb	ישבחטור וס:		Subcontract	t lo:			Re	Requested Analysis	
Bets	Betsy McDaniel		Pace - Pittsk	burgh			<u> </u>	10010000	
Pace	Pace Analytical Atlanta		1638 Roseytown Road	town Road				WO#:30704034	
110	110 Technology Parkway		Stes. 2,3,4						
Реас	Peachtree Corners, GA 30092		Greensburg, PA 15601	, PA 15601			277		
Pho	Phone (770)-734-4200		Phone (724) 850-5600	1) 850-5600			'977		
						Preserved Containers	<u></u> w		
		Sample				ε0	nik		
Item	Sample ID	Type	Collect Date/Time	Lab ID	Matrix	NH	Кас	I AB LISE ONLY	FONIY
Н	HGWA-1	9	12/6/2016 10:20	AZL0282-01	GW	П	×		
7	HGWA-2	ŋ	12/6/2016 10:20	AZL0282-02	МĐ	H	×		38
m	HGWA-3	9	12/6/2016 11:50	AZL0282-03	GW	2	×		35
4	HGWA-4	9	12/6/2016 12:52	AZL0282-04	GW		×		3
2	FB-1	9	12/6/2016 12:10	AZL0282-05	≯	-	×		K.
9	FERB-1	9	12/6/2016 12:20	AZL0282-06	*	П	×		核
7	HGWC-7	9	12/6/2016 15:25	AZL0282-07	GW	-	×		
8	HGWC-8	ŋ	12/6/2016 14:08	AZL0282-08	GW		×		35
6	HGWC-9	9	12/6/2016 15:15	AZL0282-09	ВW	₩	×		35
10	Dup-1	G	12/6/2016 0:00	AZL0282-10	ВW	1	×		\{\c^{}
Tran	Transfers Released By		Date,	/Time Received By	d By		Date/Time	Comments	
Н	-			Keen	しばり		201 222		
7									
8									
			-						
ပ္ပ	Cooler Temperature on Receipt	2		Custody Seal Y or N		Received	Received on Ice Y or N	Sample Intact (V) or N	
***	***In Ordor to majortain aliant conditionality	L. C.)				ar in Committee and in the	

| Cooler Temperature on Receipt | Custody Sear Y or N | κeceived on Ice Y ογιν | Sample Intaction or A | Sample Intaction or This chain of custody is considered complete as is since this information is available in the owner laboratory.

Friday, June 17, 2016 11:01:34 AM

Huff - 2016 1206-01

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc. 1400 – 02. $0 \le 0 \le 0$ 4 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092 (770) 7344200 : FAX (770) 7344201 : www.asi-lab.com

30204834

CUENI MAIN	ii ·						AN	ALYSIS	ANALYSIS REQUESTED			1 CONTA	CONTAINER TYPE	MOTANGE AND A TIME	pen
Georgia Fower					CONTAINER TYP	د ۵	۵	4					P. P. ASTIC	TANADA I	rabbooks
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER	RESS/PHO	NE NUMBE	RFAX		PRESERVATION:	Щ	7	3				A- A-	A - AMBER GLASS	2- H.SO <6°C	Manne
241 Katph McGill Blvd SE B10185 Affanta GA 20208	Gill Blvd SE	B10185			Jo#								G - CLEAR GLASS	3- HNO3	e u Gibelline
404-506-7239	3						-population					× .	V - VOA VIAL	4 - NaOH, ≤6°C	
REPORT TO:				CC: Maria Padilla	0	****	-construction or					, O	S-STERILE O-OTHER	5 - NaOHZnAc, <6°C 6 - NasS.O. <6°C	ပ္
Joju Abraham	Joju Abra	ham		Heath McContde	z	-	~~			******				2 / Car 20/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/2/	
REQUESTED	COMPLET	TON DATE:		PO #:	-		بالماستات	*****	,			z		/ - 20 C not mozen	
PROJECT NAME/STATE	MENSTATE			laburch@southernco.com	⋖ ·	ΛIS	(FFAC And			MATRI	MATRIX CODES:	
			domino	Cont Loumond AO 492		111	00					H			
				M- AF 192	ZΨ	.qq/	724	3		****		\$	DRINKING WATER	S- SOIL	
PROJECT #:				CCR	10%	1 490	SOT	8 22					WAS LEWATER GROUNDWATER	SL - SLUDGE SD - SOLID	
			·		מ	7) (8	8			des	SW-	SURFACE WATER	A. AIR	NO SEE
Collection DATE	Collection	MATRIX CODE*	υα∢ υα×	SAMPLE IDENTIFICATION	***************************************	189 eleti 0209 Ac	,008.74 0.00€ A	22 mulb V-646 9	,				STORM WATER WATER	L - LIQUID P - PRODUCT	
			-		*	eM 13)	CI'	명				-	REMARKS/ADDITIC	REMARKS/ADDITIONAL INFORMATION	
12/06/16	10:20	M	×	K HGWA-1	3	-	~	-							
12/06/16	10:20	W	×	HGWA-2	3	-	-	7-				N			
12/06/16	11:50	W	×	C HGWA-3	*	_	-	2				2			
12/06/16	12:52	w	×	t HGWA-4	က	-	-					4			Ĭ
12/06/16	12:10	w	×	FB-1	e	-	_	-				\w			
12/06/16	12:20	W	×	(FERB-1	e	-	_	-				10			
12/06/16	15:25	Μ	×		8	-	_	-				14			
12/06/16	14:08	W	×	C HGWC-8	₆	L	-	-				de		2.	Ī
12/06/16	15:15	3	×	HGWC-9	3	-		-				0			
12/06/16		AA	*	t-dhQ	P	+	+				(3) 50	8			
			\pm												
M.Thomas M.Rogers	THE COMME	M.Rogerg	23	22	RELINGUISHED BY:	文文 V	(<u>ا</u> ا	EZA	The state of the s	DATE/TIME:		# HV II	FOR LAB USE ON	USEONLY	
MECEIVED BY				ļ	RELINQUISHED BY:	HED B	ن		1	DATE/TIME:			ケル	10482	
		nan		DATE TAKE 1207 UPS FEDEX US	SAMPLES UPS 1	西部で	χ S	SHS	COURIGH	CUENT	OTHER FS	T	Tracking #:		
92 (39)	Ā	Ness No	₹	1 6 Min. 10 Max	operacy Sea Integet Bri	r zken	Not Present	56 1	al Designs	Cocter ID:					
7									NYTYY THE WATER OF THE STATE OF	Carrow Call for succession and a special second	ment of the control o		The second secon		

2016 12 06 Hammond Huff COCs.xlsx

Sample Condition Upon Rec	eipt	Pitts	burg	gh	30204834
Face Analytical Client Name:		F	ace	,At	Project#
Courier: Fed Ex UPS USPS Clie Tracking #: 68/2 5/00 9450	ent 🗆] Comr	mercia	I ☐ Pace Other	
Custody Seal on Cooler/Box Present:	Ø	no	Sea	ls intact:	□ no
Thermometer Used	Тур	e of Ice	e: We	et Blue None	
Cooler Temperature Observed Temp Temp should be above freezing to 6°C		- °c	Cor	rection Factor:	•
Comments:	Ye:	s No	N/A		Date and Initials of person examining contents:
Chain of Custody Present:	X	1	1	1.	
Chain of Custody Filled Out:	文	1	 	2.	
Chain of Custody Relinquished:	V			3	
Sampler Name & Signature on COC:	17		1	4.	
Sample Labels match COC:	TX		1	5.	
-Includes date/time/ID/Analysis Matrix:	N/F		<u>'</u>	- "	
Samples Arrived within Hold Time:	ΪΧ		T	6.	AND THE CONTRACT OF THE CONTRA
Short Hold Time Analysis (<72hr remaining):		X	1	7.	The second secon
Rush Turn Around Time Requested:		X		8.	Market and the second s
Sufficient Volume:	TX			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.	14			13. PH 62	
All containers needing preservation are found to be in compliance with EPA recommendation.	X				
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when (19)	Date/time of preservation
· ·				Lot # of added	preservation
	T	, ₁	77	preservative	
Headspace in VOA Vials (>6mm):			X	14.	
Trip Blank Present:		X	$\overline{}$	15.	
Trip Blank Custody Seals Present Rad Aqueous Samples Screened > 0.5 mrem/hr		j.j.	X	Initial when 1/1	
rad reproductingles objecticu / 0.5 illelli/ill				Initial when completed.	Date: 12-8-16
Client Notification/ Resolution:		,			
Person Contacted:			Date/T	ime:	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

Face Analytical"

Test: Analyst:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

12/16/2016 32909 DW Date:

Worklist: Matrix:

Sample MS I.D. Sample MSD I.D.

Spike I.D.:

Spike Volume Used in MS (mL):

Spike Volume Used in MSD (mL): MS Target Conc.(pCi/L, g, F): MSD Target Conc. (pCi/L, g, F):

MS/MSD Decay Corrected Spike Concentration (pCi/mL);

MS Aliquot (L, g, F): MSD Aliquot (L, g, F): Spike uncertainty (calculated)

Sample Collection Date: Sample I.D.

Sample Matrix Spike Control Assessment

MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC:

Method Blank Assessment

0.086 0.168 1.60 N/A Pass MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC

LCS32909

Laboratory Control Sample Assessment

LCSD32909 12/19/2016 16-026 Count Date Spike I.D.

Sample Matrix Spike Result:

Sample Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Result

Sample Matrix Spike Duplicate Result:

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

MS Percent Recovery:

MSD Percent Recovery.

MS Numerical Performance Indicator: MSD Numerical Performance Indicator:

MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:

MS Status vs Recovery.

MSD Status vs Recover

44.672 0.506 0.10 Spike Concentration (pCi/mL): Aliquot Volume (L., g, F): Volume Used (mL)

Result (pC/L, g, F): LCS/LCSD Counting Uncertainty (pC/L, g, F): Percent Recovery: Uncertainty (Calculated): Numerical Performance Indicator: Target Conc. (pCi/L, g, F):

Status vs Numerical Indicator:

Status vs Recovery

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample MSD I.D

CS/LCSD in the

other than

0.021

space below.

0.091 0.129 0.143

Sample Result (pCi/L, g, F):
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below MDC?

See Below 排

-1.252 144.06%

Duplicate RPD:

Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator:

Rail*

Duplicate Status vs RPD:

Enter Duplicate sample IDs if

30204306004 30204306004DUP

Sample I.D.: Duplicate Sample I.D.

Duplicate Sample Assessment

Sample MS I.D.

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 its are below the MDC.

Evaluation of duplicate precision is not applicable if either the sample or duplicate re

Comments

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

Printed: 1/11/2017 4:46 PM TAR DW QC

Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date:

Sample Matrix Spike Control Assessment

Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:

12/16/2016 32910 DW Ra-226 Y Analyst: Test: Date: Worklist: Matrix:

Method Blank Assessmen

0.092 0.202 1.24 N/A Pass MB concentration: MB Sample ID MB MDC: M/B Counting Uncertainty MB Numerical Performance Indicator: MB Status vs Numerical Indicator;

MB Status vs. MDC Laboratory Control Sample Assessment

MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F):

MS Aliquot (L, g, F):

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): 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):

MSD Numerical Performance Indicator:

MS Numerical Performance Indicator:

MS Percent Recovery:

MSD Percent Recovery MS Status vs Numerical Indicator.

MSD Status vs Numerical Indicator:

MS Status vs Recovery.

MSD Status vs Recovery

LCSD32910 LCSD (Y or N)? LCS32910

12/20/2016 16-026 44.672 0.419 6.764 0.10 904 Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Percent Recovery: Spike I.D.: Spike Concentration (pCi/mL): Volume Used (mL): Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated): Numerical Performance Indicator: Status vs Numerical Indicator: Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample MS I.D. Sample MSD I.D.

other than LCS/LCSD in the

space below.

0.155

Sample I.D.:

Duplicate Sample I.D.

Sample Result (pCif., g, F):
Sample Result Counting Uncertainty (pCif., g, F):
Sample Duplicate Result (pCif., g, F):

Enter Duplicate

30204838001 30204838001DUP

Status vs Recovery

Duplicate Sample Assessmen

sample IDs if

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Duplicate Numerical Performance Indicator: MS/ MSD Duplicate RPD

30204838001 204838001DUP

See Below 排

Are sample and/or duplicate results below MDC?

Duplicate Numerical Performance Indicator:

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):

0.192

-1.279 42.22%

Duplicate RPD:

Duplicate Status vs Numerical Indicator;

Duplicate Status vs RPD;

۲

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.

Printed: 1/11/2017 4:46 PM TAR DW QC

Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date: Sample MS 1.D. Sample MSD I.D. Spike I.D.:

Sample Matrix Spike Control Assessment

12/28/2016 Ra-228 M٦٢ Worklist: Matrix: Test: Date: Analyst:

32912 DW

0.462 MB Sample ID MB concentration:

Method Blank Assessment

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):

MS/MSD Decay Corrected Spike Concentration (pCi/mL):

MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated):

Sample Result:

Sample Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Result:

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Duplicate Result: MS Numerical Performance Indicator: MSD Numerical Performance Indicator: 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

MS Percent Recovery:

0.678 2.66 N/A Pass 0.340 MB MDC: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: M/B Counting Uncertainty: MB Status vs. MDC

Laboratory Control Sample Assessment

N LCSD32912 SD (Y or N)? LCS32912 1/8/2017 16-027 25.613 0.20 6.269 0.451 8.156 0.806 0.817 Spike Concentration (pCI/mL): Volume Used (mL): Aliquot Volume (L, g, F): Target Conc. (pCI/L, g, F): Uncertainty (Calculated): Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Count Date: Spike I.D.:

Numerical Performance Indicator: Percent Recovery: Status vs Numerical Indicator: Status vs Recoven

Duplicate Sample Assessmen

he space below Enter Duplicate LCS/LCSD in sample IDs if other than Duplicate Sample I.D. 30204834003DUP 30204834003 See Below 排 0.372 0.436 Sample I.D.: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Result (pCI/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Result

Sample MSD I.D.

Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample Matrix Spike Duplicate Result:

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):

-2.649 67.95% Are sample and/or duplicate results below MDC? Duplicate Numerical Performance Indicator: Duplicate RPD:

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. N/A Fail Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD

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

Comments:

1 of 1

Ra-228 NELAC DW2 Printed: 1/11/2017 4:47 PM



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: AZL0390

December 23, 2016

Project: CCR Event

Project #:Plant Hammond

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

Approved:

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, LLC.

All test results relate only to the samples analyzed.



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 23, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWC-10	AZL0390-01	Water	12/07/16 10:05	12/08/16 12:15
HGWC-11	AZL0390-02	Water	12/07/16 12:55	12/08/16 12:15
HGWC-12	AZL0390-03	Water	12/07/16 09:40	12/08/16 12:15
HGWC-13	AZL0390-04	Water	12/07/16 10:45	12/08/16 12:15
HGWC-14	AZL0390-05	Water	12/07/16 11:58	12/08/16 12:15
HGWC-15	AZL0390-06	Water	12/07/16 12:50	12/08/16 12:15
HGWC-16	AZL0390-07	Water	12/07/16 14:45	12/08/16 12:15
HGWC-17	AZL0390-08	Water	12/07/16 14:27	12/08/16 12:15
Dup-2	AZL0390-09	Water	12/07/16 00:00	12/08/16 12:15



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 23, 2016

Case Narrative

Total Dissolved Solids (TDS) via Standard Method 2540C (H-02 qualifier):

Due to analyst oversight, sample AZL0390-09 (Dup-2) was analyzed outside the recommended holding time of 7 days.



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

Project: CCR Event

Report No.: AZL0390 Client ID: HGWC-10

Lab Number ID: AZL0390-01

Date/Time Sampled: 12/7/2016 10:05:00AM

Date/Time Received: 12/8/2016 12:15:00PM

December 23, 2016

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	697	25	10	mg/L	SM 2540 C		1	12/13/16 08:56	12/13/16 08:56	6120342	JPT
Inorganic Anions											
Chloride	96	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 17:57	6120686	RLC
Fluoride	0.44	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 16:22	6120686	RLC
Sulfate	200	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 17:57	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Barium	0.107	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Boron	1.01	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Calcium	183	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 15:57	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Cobalt	0.0012	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:32	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:27	6120387	MTC



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

Report No.: AZL0390

Client ID: HGWC-11

Date/Time Sampled: 12/7/2016 12:55:00PM

Matrix: Water

December 23, 2016

Project: CCR Event

Lab Number ID: AZL0390-02

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	lnit.
General Chemistry											
Total Dissolved Solids	748	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	180	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:18	6120686	RLC
Fluoride	0.55	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 18:14	6120686	RLC
Sulfate	260	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:18	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Barium	0.100	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Boron	2.96	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Calcium	159	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:03	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Cobalt	0.0030	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Molybdenum	0.0209	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Selenium	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:48	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:30	6120387	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Report No.: AZL0390 Client ID: HGWC-12

Lab Number ID: AZL0390-03

Date/Time Sampled: 12/7/2016 9:40:00AM

Date/Time Received: 12/8/2016 12:15:00PM

December 23, 2016

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	811	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	190	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:38	6120686	RLC
Fluoride	0.73	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 18:58	6120686	RLC
Sulfate	280	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:38	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Arsenic	0.0046	0.0050	0.0016	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Barium	0.130	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Boron	3.35	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Cadmium	0.0002	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Calcium	193	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:09	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Cobalt	0.0021	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Molybdenum	0.0432	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Selenium	0.0011	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Lithium	0.0155	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:56	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:32	6120387	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZL0390

Client ID: HGWC-13

Date/Time Sampled: 12/7/2016 10:45:00AM

Matrix: Water

December 23, 2016

Project: CCR Event

Lab Number ID: AZL0390-04

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	465	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:59	6120686	RLC
Fluoride	1.0	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 19:21	6120686	RLC
Sulfate	120	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 18:59	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Arsenic	0.350	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Barium	0.0798	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Boron	3.85	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Calcium	113	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:26	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Cobalt	0.0034	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Molybdenum	0.0383	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Lithium	0.0477	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:03	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:34	6120387	MTC



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Attention: Mr. Joju Abraham

Report No.: AZL0390

Client ID: HGWC-14

Date/Time Sampled: 12/7/2016 11:58:00AM

Matrix: Water

December 23, 2016

Project: CCR Event

Lab Number ID: AZL0390-05

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	2740	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	510	25	1.4	mg/L	EPA 300.0		100	12/18/16 10:09	12/18/16 19:20	6120686	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 19:43	6120686	RLC
Sulfate	1300	100	5.1	mg/L	EPA 300.0		100	12/18/16 10:09	12/18/16 19:20	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Barium	0.0220	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Beryllium	0.0006	0.0030	0.00008	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Boron	16.5	4.00	0.642	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:32	6120327	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Calcium	590	250	15.5	mg/L	EPA 6020B		500	12/13/16 07:55	12/22/16 12:09	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Cobalt	0.0269	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Lead	0.0018	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Selenium	0.0100	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Thallium	0.0003	0.0010	0.0002	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:11	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:37	6120387	MTC



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Attention: Mr. Joju Abraham

Report No.: AZL0390

Client ID: HGWC-15

Date/Time Sampled: 12/7/2016 12:50:00PM

Matrix: Water

December 23, 2016

Project: CCR Event

Lab Number ID: AZL0390-06

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1040	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	240	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 20:42	6120686	RLC
Fluoride	0.23	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 20:05	6120686	RLC
Sulfate	450	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 20:42	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Barium	0.0301	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Boron	2.23	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Cadmium	0.0018	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Calcium	203	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:38	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Cobalt	0.0536	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Selenium	0.0041	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:18	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:39	6120387	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZL0390

Client ID: HGWC-16

Date/Time Sampled: 12/7/2016 2:45:00PM

Matrix: Water

December 23, 2016

Project: CCR Event

Lab Number ID: AZL0390-07

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	561	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	38	0.25	0.01	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 20:28	6120686	RLC
Fluoride	0.23	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 20:28	6120686	RLC
Sulfate	220	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:03	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Barium	0.101	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Boron	1.42	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Calcium	146	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:43	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Lithium	0.0029	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:25	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:46	6120387	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Project: CCR Event

Report No.: AZL0390 Client ID: HGWC-17

Lab Number ID: AZL0390-08

Chefit ID: 110440-17

Date/Time Received: 12/8/2016 12:15:00PM

December 23, 2016

Date/Time Sampled: 12/7/2016 2:27:00PM

Matrix:	Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	866	25	10	mg/L	SM 2540 C		1	12/12/16 21:27	12/12/16 21:27	6120343	JPT
Inorganic Anions											
Chloride	89	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:24	6120686	RLC
Fluoride	0.54	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 20:50	6120686	RLC
Sulfate	410	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:24	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Barium	0.0227	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Boron	5.74	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Calcium	212	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:49	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Cobalt	0.0141	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Selenium	0.0023	0.0100	0.0010	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:33	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:49	6120387	MTC



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

Project: CCR Event

Report No.: AZL0390

Lab Number ID: AZL0390-09

Client ID: Dup-2

Date/Time Received: 12/8/2016 12:15:00PM

December 23, 2016

Date/Time Sampled: 12/7/2016 12:00:00AM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	576	25	10	mg/L	SM 2540 C	H-02	1	12/15/16 17:29	12/15/16 17:29	6120479	JPT
Inorganic Anions											
Chloride	110	2.5	0.14	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:44	6120686	RLC
Fluoride	1.1	0.30	0.02	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 21:12	6120686	RLC
Sulfate	120	10	0.51	mg/L	EPA 300.0		10	12/18/16 10:09	12/18/16 21:44	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Arsenic	0.356	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Barium	0.0796	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Boron	3.56	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Calcium	116	50.0	3.11	mg/L	EPA 6020B		100	12/13/16 07:55	12/21/16 16:55	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Cobalt	0.0034	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Molybdenum	0.0380	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Thallium	0.0004	0.0010	0.0002	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Lithium	0.0460	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 20:40	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:51	6120387	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZL0390

General Chemistry - Quality Control

December 23, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120342 - SM 2540 C											
Blank (6120342-BLK1)						Prepar	ed & Analy	yzed: 12/1:	3/16		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120342-BS1)						Prepar	ed & Anal	yzed: 12/1:	3/16		
Total Dissolved Solids	381	25	10	mg/L	400.00	•	95	84-108			
Duplicate (6120342-DUP1)		Soi	ırce: AZL03	883-08		Prepar	ed & Anal	yzed: 12/1:	3/16		
Total Dissolved Solids	557	25	10	mg/L		565		,	1	10	
Duplicate (6120342-DUP2)		Soi	ırce: AZL03	883-11		Prepar	ed & Anal	yzed: 12/1:	3/16		
Total Dissolved Solids	ND	25	10	mg/L		ND		,	-	10	
Batch 6120343 - SM 2540 C											
Blank (6120343-BLK1)						Prepar	ed & Anal	yzed: 12/1:	2/16		
Total Dissolved Solids	ND	25	10	mg/L			•	,			
LCS (6120343-BS1)						Prepar	ed & Anal	vzed: 12/1:	2/16		
Total Dissolved Solids	364	25	10	mg/L	400.00		91	84-108	-		
Duplicate (6120343-DUP1)		Soi	ırce: AZL03	390-07		Prepar	ed & Anal	yzed: 12/1:	2/16		
Total Dissolved Solids	536	25	10	mg/L		561			5	10	QR-03
Duplicate (6120343-DUP2)		Soi	ırce: AZL04	118-03		Prenar	ed & Analy	yzed: 12/1:	2/16		
Total Dissolved Solids	ND	25	10	mg/L		ND	04 47 11141	y200. 12711	<u> </u>	10	
Batch 6120479 - SM 2540 C											
Blank (6120479-BLK1)						Prepar	ed & Anal	yzed: 12/1	5/16		
Total Dissolved Solids	ND	25	10	mg/L				, , , , , , , , , , , , , , , , , , , ,			



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Report No.: AZL0390

December 23, 2016

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120479 - SM 2540 C											
LCS (6120479-BS1)						Prepar	ed & Anal	yzed: 12/1	5/16		
Total Dissolved Solids	397	25	10	mg/L	400.00		99	84-108			
Duplicate (6120479-DUP1)		So	urce: AZL03	90-09		Prepar	ed & Anal	yzed: 12/1	5/16		
Total Dissolved Solids	602	25	10	mg/L		576			4	10	



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Report No.: AZL0390

December 23, 2016

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120686 - EPA 300.0											
Blank (6120686-BLK1)						Prepare	ed: 12/18/	16 Analyz	ed: 12/20	/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 (6120686-BS1)						Prepare	ed: 12/18/	16 Analyz	ed: 12/20	/16	
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	10.5	0.30	0.02	mg/L	10.020		104	90-110			
Sulfate	10.5	1.0	0.05	mg/L	10.020		104	90-110			
Matrix Spike (6120686-MS1)		Sou	ırce: AZL03	87-01RE1		Prepare	ed: 12/18/	16 Analyz	ed: 12/20	/16	
Chloride	12.0	0.25	0.01	mg/L	10.010	2.00	100	90-110			
Fluoride	10.4	0.30	0.02	mg/L	10.020	0.24	102	90-110			
Sulfate	22.0	1.0	0.05	mg/L	10.020	13.0	90	90-110			
Matrix Spike (6120686-MS2)		Sou	ırce: AZL03	90-02RE2		Prepare	ed: 12/18/	16 Analyz	ed: 12/20	/16	
Chloride	125	0.25	0.01	mg/L	10.010	129	NR	90-110			QM-02
Fluoride	11.7	0.30	0.02	mg/L	10.020	0.55	111	90-110			QM-05
Sulfate	186	1.0	0.05	mg/L	10.020	194	NR	90-110			QM-02
Matrix Spike Dup (6120686-MSD1)		Sou	ırce: AZL03	87-01RE1		Prepare	ed: 12/18/	16 Analyz	ed: 12/20	/16	
Chloride	12.3	0.25	0.01	mg/L	10.010	2.00	102	90-110	2	15	
Fluoride	10.7	0.30	0.02	mg/L	10.020	0.24	105	90-110	3	15	
Sulfate	22.0	1.0	0.05	mg/L	10.020	13.0	90	90-110	0.09	15	



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December 23, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120327 - EPA 3005A											
Blank (6120327-BLK1)						Prepare	ed: 12/13/	16 Analyz	ed: 12/14/	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 (6120327-BS1)						Prepare	ed: 12/13/	16 Analyz	ed: 12/14/	16	
Antimony	0.102	0.0030	0.0008	mg/L	0.10000		102	80-120			
Arsenic	0.0998	0.0050	0.0016	mg/L	0.10000		100	80-120			
Barium	0.0989	0.0100	0.0004	mg/L	0.10000		99	80-120			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000		101	80-120			
Boron	1.01	0.0400	0.0064	mg/L	1.0000		101	80-120			
Cadmium	0.104	0.0010	0.00007	mg/L	0.10000		104	80-120			
Calcium	0.968	0.500	0.0311	mg/L	1.0000		97	80-120			
Chromium	0.0986	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.0970	0.0100	0.0005	mg/L	0.10000		97	80-120			
Copper	0.101	0.0250	0.0005	mg/L	0.10000		101	80-120			
Lead	0.0988	0.0050	0.0001	mg/L	0.10000		99	80-120			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000		103	80-120			
Nickel	0.0972	0.0100	0.0006	mg/L	0.10000		97	80-120			
Selenium	0.0986	0.0100	0.0010	mg/L	0.10000		99	80-120			
Silver	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Thallium	0.0989	0.0010	0.0002	mg/L	0.10000		99	80-120			
Vanadium	0.0993	0.0100	0.0071	mg/L	0.10000		99	80-120			
Zinc	0.100	0.0100	0.0021	mg/L	0.10000		100	80-120			
Lithium	0.0991	0.0500	0.0021	mg/L	0.10000		99	80-120			



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Report No.: AZL0390

December 23, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120327 - EPA 3005A											
Matrix Spike (6120327-MS1)		Soi	urce: AZL038	37-04		Prepar	ed: 12/13/	16 Analyz	ed: 12/14/	′16	
Antimony	0.102	0.0030	0.0008	mg/L	0.10000	ND	102	75-125			
Arsenic	0.0936	0.0050	0.0016	mg/L	0.10000	ND	94	75-125			
Barium	0.186	0.0100	0.0004	mg/L	0.10000	0.0868	99	75-125			
Beryllium	0.0993	0.0030	0.00008	mg/L	0.10000	ND	99	75-125			
Boron	1.09	0.0400	0.0064	mg/L	1.0000	0.0758	102	75-125			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000	ND	105	75-125			
Calcium	48.3	25.0	1.55	mg/L	1.0000	45.3	298	75-125			QM-02
Chromium	0.0936	0.0100	0.0009	mg/L	0.10000	ND	94	75-125			
Cobalt	0.0929	0.0100	0.0005	mg/L	0.10000	ND	93	75-125			
Copper	0.0939	0.0250	0.0005	mg/L	0.10000	0.0006	93	75-125			
Lead	0.0995	0.0050	0.0001	mg/L	0.10000	ND	100	75-125			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000	ND	103	75-125			
Nickel	0.0946	0.0100	0.0006	mg/L	0.10000	0.0017	93	75-125			
Selenium	0.0937	0.0100	0.0010	mg/L	0.10000	ND	94	75-125			
Silver	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125			
Thallium	0.100	0.0010	0.0002	mg/L	0.10000	ND	100	75-125			
Vanadium	0.0976	0.0100	0.0071	mg/L	0.10000	ND	98	75-125			
Zinc	0.0971	0.0100	0.0021	mg/L	0.10000	ND	97	75-125			
Lithium	0.111	0.0500	0.0021	mg/L	0.10000	0.0153	95	75-125			
Matrix Spike Dup (6120327-MSD1)		Soi	urce: AZL038	37-04		Prepar	ed: 12/13/	16 Analyz	ed: 12/14/	/16	
Antimony	0.101	0.0030	0.0008	mg/L	0.10000	ND	101	75-125	2	20	
Arsenic	0.0947	0.0050	0.0016	mg/L	0.10000	ND	95	75-125	1	20	
Barium	0.183	0.0100	0.0004	mg/L	0.10000	0.0868	97	75-125	1	20	
Beryllium	0.0972	0.0030	0.00008	mg/L	0.10000	ND	97	75-125	2	20	
Boron	1.05	0.0400	0.0064	mg/L	1.0000	0.0758	98	75-125	3	20	
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	4	20	
Calcium	47.7	25.0	1.55	mg/L	1.0000	45.3	242	75-125	1	20	QM-02
Chromium	0.0910	0.0100	0.0009	mg/L	0.10000	ND	91	75-125	3	20	
Cobalt	0.0901	0.0100	0.0005	mg/L	0.10000	ND	90	75-125	3	20	
Copper	0.0922	0.0250	0.0005	mg/L	0.10000	0.0006	92	75-125	2	20	
Lead	0.0961	0.0050	0.0001	mg/L	0.10000	ND	96	75-125	3	20	
Molybdenum	0.101	0.0100	0.0017	mg/L	0.10000	ND	101	75-125	2	20	
Nickel	0.0924	0.0100	0.0006	mg/L	0.10000	0.0017	91	75-125	2	20	
Selenium	0.0915	0.0100	0.0010	mg/L	0.10000	ND	92	75-125	2	20	
Silver	0.0993	0.0100	0.0005	mg/L	0.10000	ND	99	75-125 75-125	2	20	
Thallium	0.0950	0.0010	0.0002	mg/L	0.10000	ND	95	75-125 75-125	5	20	
Vanadium	0.0973	0.0100	0.0071	mg/L	0.10000	ND	97	75-125 75-125	0.3	20	
Zinc	0.0942	0.0100	0.0021	mg/L	0.10000	ND	94	75-125 75-125	3	20	
Lithium	0.0942	0.0500	0.0021	mg/L	0.10000	0.0153	94 97	75-125 75-125	1	20	
Liuliani	0.112	0.0000	0.0021	mg/L	0.10000	0.0100	JI	10-120	1	20	



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0390

Analysis	Result	RL	MDL	Units	Spike	Source	0/ DEC	%REC	DDD	RPD	Natas	
Analyte	result	11.2	WIDE	Office	Level	Result	%REC	Limits	RPD	Limit	Notes	
Batch 6120327 - EPA 3005A												
Post Spike (6120327-PS1)	Source: AZL0387-04				Prepared: 12/13/16 Analyzed: 12/14/16							
Antimony	98.8			ug/L	100.00	0.310	98	80-120				
Arsenic	92.5			ug/L	100.00	-0.580	92	80-120				
Barium	178			ug/L	100.00	86.8	92	80-120				
Beryllium	97.2			ug/L	100.00	0.0100	97	80-120				
Boron	1070			ug/L	1000.0	75.8	99	80-120				
Cadmium	102			ug/L	100.00	0.00	102	80-120				
Calcium	46400			ug/L	1000.0	45300	113	80-120				
Chromium	92.3			ug/L	100.00	-2.69	92	80-120				
Cobalt	91.0			ug/L	100.00	0.230	91	80-120				
Copper	92.4			ug/L	100.00	0.580	92	80-120				
Lead	97.1			ug/L	100.00	0.00	97	80-120				
Molybdenum	103			ug/L	100.00	0.130	103	80-120				
Nickel	91.8			ug/L	100.00	1.67	90	80-120				
Selenium	92.1			ug/L	100.00	-0.370	92	80-120				
Silver	99.8			ug/L	100.00	0.00	100	80-120				
Thallium	97.6			ug/L	100.00	0.0100	98	80-120				
Vanadium	97.8			ug/L	100.00	2.96	95	80-120				
Zinc	95.2			ug/L	100.00	1.18	94	80-120				
Lithium	110			ug/L	100.00	15.3	95	80-120				
Batch 6120387 - EPA 7470A												
Blank (6120387-BLK1)	Prepared & Analyzed: 12/14/16											
Mercury	ND	0.00050	0.000041	mg/L								
LCS (6120387-BS1)	Prepared & Analyzed: 12/14/16											
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3		95	80-120				



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Report No.: AZL0390

December 23, 2016

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch 6120387 - EPA 7470A												
Duplicate (6120387-DUP1)		Source: AZL0390-01					Prepared & Analyzed: 12/14/16					
Mercury	ND	0.00050	0.000041	mg/L		ND				20		
Matrix Spike (6120387-MS1)		Source: AZL0387-07					Prepared & Analyzed: 12/14/16					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125				
Matrix Spike Dup (6120387-MSD1)	Source: AZL0387-07						Prepared & Analyzed: 12/14/16					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	2	20		
Post Spike (6120387-PS1)	Source: AZL0387-07					Prepared & Analyzed: 12/14/16						
Mercury	1.66			ug/L	1.6667	-0.0210	100	80-120				



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 23, 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).
- H-02 Sample was prepared and/or analyzed outside of the EPA recommended holding time. See Case Narrative.

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

AP142-20161207-01

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

P PAGE:

Processor Proc	CLIENT NAME:							NALYSIS	ANALYSIS REQUESTED			CONTAINER TYPE P	PRESERVATION
STATE Part Humber Part H	Georgia Power				CONTAINER	<u> </u>	┝	<u>а</u>			-	P - PLASTIC	1 - HCI, ≤6°C
Fig. 2 Fig. 2 Fig. 3 Fig. 4 F	CHICKLY ADDRESS/PHO	NE NI IMBE	0 /F A		PRESERVATI	H	╀	╀			ď	A - AMBER GLASS	2. H.SO., S6°C
CC: Health McCordes	241 Ralph McGill Blvd SE	B10185			ţo #	┿	╀	╀			<i>7</i>	G - CLEAR GLASS	3. HNO,
Solution CC: Maria Padilla CC: Mar	Atlanta, GA 30308				•						Prost.	V - VOA VIAL	4 - NaOH, s6°C
Martin Columbia	404-300-7233				۰ د						Ç.,		C SOUTH OF S
Set Africa Political Continues Politic	•	ham			0 z						ક્ <i>ા</i> લ્લા	- O	7 - 56°C not frozen
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Environmental Monitoring & Laboratory Analysis 110 Technology Parkway, Peachtree Corners, GA 30092 (770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 12/12/2016 10:48:23AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AZL0390

Date Received: 12/08/16 12:15 Logged In By: Mohammad M. Rahman

OBSERVATIONS

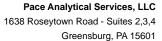
#Samples: 9 **#Containers:** 28

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:



(724)850-5600



January 23, 2017

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30205268

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on December 12, 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

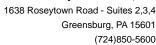
Sugnely Sellins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30205268

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

Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282 South Dakota Certification

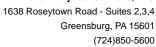
Tennessee Certification #: TN2867

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





SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30205268

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30205268001	HGWC-10	Water	12/07/16 10:05	12/12/16 09:20
30205268002	HGWC-11	Water	12/07/16 12:55	12/12/16 09:20
30205268003	HGWC-12	Water	12/07/16 09:40	12/12/16 09:20
30205268004	HGWC-13	Water	12/07/16 10:45	12/12/16 09:20
30205268005	HGWC-14	Water	12/07/16 11:58	12/12/16 09:20
30205268006	HGWC-15	Water	12/07/16 12:50	12/12/16 09:20
30205268007	HGWC-16	Water	12/07/16 14:45	12/12/16 09:20
30205268008	HGWC-17	Water	12/07/16 14:27	12/12/16 09:20
30205268009	Dup-2	Water	12/07/16 00:01	12/12/16 09:20



SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30205268

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30205268001	HGWC-10	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205268002	HGWC-11	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205268003	HGWC-12	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205268004	HGWC-13	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205268005	HGWC-14	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205268006	HGWC-15	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205268007	HGWC-16	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205268008	HGWC-17	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205268009	Dup-2	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205268

Sample: HGWC-10	Lab ID: 3020526		Received:	12/12/16 09:20	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.143 ± 0.159 (0.305) C:91% T:NA	pCi/L	01/17/17 11:19	13982-63-3	
Radium-228	EPA 9320	0.415 ± 0.375 (0.758) C:64% T:93%	pCi/L	01/22/17 16:01	15262-20-1	
Total Radium	Total Radium Calculation	0.558 ± 0.534 (1.06)	pCi/L	01/23/17 12:09	7440-14-4	
Sample: HGWC-11	Lab ID: 3020526		Received:	12/12/16 09:20	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.206 ± 0.168 (0.270) C:97% T:NA	pCi/L	01/17/17 11:19	13982-63-3	
Radium-228	EPA 9320	0.575 ± 0.387 (0.728) C:64% T:90%	pCi/L	01/22/17 16:01	15262-20-1	
Total Radium	Total Radium Calculation	0.781 ± 0.555 (0.998)	pCi/L	01/23/17 12:09	7440-14-4	
Sample: HGWC-12 PWS:	Lab ID: 3020526 Site ID:	8003 Collected: 12/07/16 09:40 Sample Type:	Received:	12/12/16 09:20	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.153 ± 0.195 (0.411)	pCi/L	01/17/17 11:19	13982-63-3	
Radium-228	EPA 9320	C:97% T:NA 0.166 ± 0.337 (0.742)	pCi/L	01/22/17 16:01	15262-20-1	
Total Radium	Total Radium Calculation	C:68% T:94% 0.319 ± 0.532 (1.15)	pCi/L	01/23/17 12:09	7440-14-4	
Sample: HGWC-13 PWS:	Lab ID: 3020526 Site ID:	8004 Collected: 12/07/16 10:45 Sample Type:	Received:	12/12/16 09:20	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.187 ± 0.176 (0.313)	pCi/L	01/17/17 11:19	13982-63-3	
Radium-228	EPA 9320	C:90% T:NA 0.470 ± 0.363 (0.708)	pCi/L	01/22/17 16:01	15262-20-1	
Total Radium	Total Radium Calculation	C:69% T:85% 0.657 ± 0.539 (1.02)	pCi/L	01/23/17 12:09	7440-14-4	
Sample: HGWC-14 PWS:	Lab ID: 3020526 Site ID:	8005 Collected: 12/07/16 11:58 Sample Type:	Received:	12/12/16 09:20	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.383 ± 0.234 (0.342)	pCi/L	01/17/17 11:19		
Radium-228	EPA 9320	C:97% T:NA 0.968 ± 0.435 (0.686) C:65% T:87%	pCi/L	01/22/17 16:01	15262-20-1	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

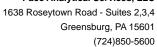


ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pace Project No.: 30205268 Sample: HGWC-14 Lab ID: 30205268005 Collected: 12/07/16 11:58 Received: 12/12/16 09:20 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Total Radium Total Radium 1.35 ± 0.669 (1.03) pCi/L 01/23/17 12:09 7440-14-4 Calculation Collected: 12/07/16 12:50 Sample: HGWC-15 Lab ID: 30205268006 Received: 12/12/16 09:20 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.0588 \pm 0.130 \quad (0.307)$ Radium-226 pCi/L 01/17/17 11:19 13982-63-3 C:91% T:NA Radium-228 EPA 9320 $0.243 \pm 0.374 \quad (0.808)$ pCi/L 01/22/17 16:01 15262-20-1 C:64% T:87% Total Radium Total Radium 0.302 ± 0.504 (1.12) pCi/L 01/23/17 12:09 7440-14-4 Calculation Sample: HGWC-16 Lab ID: 30205268007 Collected: 12/07/16 14:45 Received: 12/12/16 09:20 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 $0.101 \pm 0.190 \quad (0.435)$ Radium-226 01/17/17 09:42 13982-63-3 pCi/L C:93% T:NA 1.01 ± 0.470 (0.791) Radium-228 EPA 9320 pCi/L 01/22/17 16:01 15262-20-1 C:66% T:90% Total Radium Total Radium 1.11 ± 0.660 (1.23) pCi/L 01/23/17 12:09 7440-14-4 Calculation Lab ID: 30205268008 Sample: HGWC-17 Collected: 12/07/16 14:27 Received: 12/12/16 09:20 Matrix: Water PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 0.0575 ± 0.127 (0.300) Radium-226 pCi/L 01/17/17 09:42 13982-63-3 C:97% T:NA EPA 9320 $0.906 \pm 0.444 \quad (0.756)$ Radium-228 pCi/L 01/22/17 15:59 15262-20-1 C:65% T:91% Total Radium Total Radium 0.964 ± 0.571 (1.06) pCi/L 01/23/17 12:09 7440-14-4 Calculation Sample: Dup-2 Lab ID: 30205268009 Collected: 12/07/16 00:01 Received: 12/12/16 09:20 Matrix: Water PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Radium-226 EPA 9315 $0.0156 \pm 0.145 \quad (0.394)$ 01/17/17 09:42 13982-63-3 pCi/L C:82% T:NA EPA 9320 1.12 ± 0.455 Radium-228 (0.673)pCi/L 01/22/17 15:59 15262-20-1 C:65% T:88% Total Radium 1.14 ± 0.600 (1.07) Total Radium pCi/L 01/23/17 12:09 7440-14-4

REPORT OF LABORATORY ANALYSIS

Calculation





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30205268

QC Batch: 245742 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30205268001, 30205268002, 30205268003, 30205268004, 30205268005, 30205268006, 30205268007,

30205268008, 30205268009

METHOD BLANK: 1208865 Matrix: Water

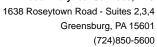
Associated Lab Samples: 30205268001, 30205268002, 30205268003, 30205268004, 30205268005, 30205268006, 30205268007,

30205268008, 30205268009

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.683 ± 0.424 (0.798) C:67% T:93% pCi/L 01/22/17 16:02

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.





QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond

Pace Project No.: 30205268

QC Batch: 245741 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30205268001, 30205268002, 30205268003, 30205268004, 30205268005, 30205268006, 30205268007,

30205268008, 30205268009

METHOD BLANK: 1208863 Matrix: Water

Associated Lab Samples: 30205268001, 30205268002, 30205268003, 30205268004, 30205268005, 30205268006, 30205268007,

30205268008, 30205268009

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.106 ± 0.218 (0.506) C:79% T:NA pCi/L 01/17/17 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.

Greensburg, PA 15601 (724)850-5600



QUALIFIERS

Project: Plant Hammond Pace Project No.: 30205268

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.

Date: 01/23/2017 02:00 PM

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#:30205268

34,



Chain of Custody

Face Analytical *

LAB USE ONLY Results Requested By: 1/10/2017 Comments Requested Analysis Date/Time Radium 226, 228, Total × × × Preserved Containers Owner Received Date: ЕОИН Matrix Ŋ. Ø₩ 80 Ø₩ 8 Ø₩ ďΜ 8€ 8 Received By distun AZL0390-03 AZL0390-04 AZL0390-05 AZL0390-06 AZL0390-07 AZL0390-08 AZL0390-09 AZL0390-01 AZL0390-02 Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Date/Time Collect Date/Time Lab ID Pace - Pittsburgh Subcontract To: 12/7/2016 14:45 12/7/2016 10:45 12/7/2016 10:05 12/7/2016 11:58 12/7/2016 12:50 12/7/2016 12:55 12/7/2016 9:40 12/7/2016 14:27 12/7/2016 0:00 Stes. 2,3,4 Workorder Name: Sample Туре Ģ G G g G G g G G Peachtree Corners, GA 30092 110 Technology Parkway. Workorder: AZL0390 Pace Analytical Atlanta Transfers Released By Phone (770)-734-4200 **Betsy McDaniel** Sample ID HGWC-16 HGWC-10 HGWC-11 HGWC-12 HGWC-13 HGWC-14 HGWC-15 HGWC-17 Dup-2 Report To: len Len

Cooler Temperature on Receipt	かつ	ړ	Custody Seal Y or (N)	Received on Ice Y or 🕦	Sample Intact 💯 or N
***In order to maintain client confidentiality,	confidentia	ality, loc	cation/name of the sampling sit	on/name of the sampling site, sampler's name and signature may not be provided on this	ided on this COC
This chain of custody is considered complete as is sin	red compl	ete as i	is since this information is availa	ice this information is available in the owner laboratory.	

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

AP142-20161207-01

CHAIN OF CUSTODY RECORD / Pace Analytical 11

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

30 20 5 2 6 8 PAGE: 1 OF THE OF THE CORNERS, GA 30092

									ANALYSE DECLED	ICCTEN		NO.	PB TYPE BB	PRESERVATION
CLIENI NAME:	ij. ¥.				Sept.	ş	-	֓֞֜֜֜֜֜֟֓֓֓֓֓֓֟֜֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֡֓֓֓֓֓֡֓֓֡֓֡֓֡֓֡	P P					1- HCI, S8°C
out of the					CONTAINES	<u> </u>	.,	╀	1	1		į.	A - AMRER GLASS	2- H-SO, 56°C
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER	RESS/PHO	AE NUMBER	YFAX		PRESERVATION	* *	<u></u>	"	#	$\frac{1}{1}$		Virgin	G-CLEAR GLASS	3. HNO.
241 Ratph McGill Blvd SE B10185 Atfanta, GA 30308	2308 2308	819185			5		<u>.</u>				20	s(#35)	V - VOA VIAL	4 - NaOH, s6°C
404-506-7239					ပ								O-VIENILE O CALIED	A- Na.S.Q. 48°C
REPORT TO:	l			CC: Marta Padillia	0							1		7 - cent moran
	Joju Abraham	Tam Tam		Heath McCorkle	z							ure:		
REQUESTED COMPLETION DATE:	COMPLET	ION DATE:		PO#:	- <							 	*MATRIX CODES:	ODES:
DOO IEST NIAME (STATE	AKCASTATE			aburch@souriemco.com	< -	, 5	י פו ו	(0						
			amma	Plant Hammond - AP 1&2	21		n da					B DW	DRINKING WATER	s - soil. st - studge
PROJECT #:					n Œ		(0/1	WS				8	GROUNDWATER	SD- SOLID
				- CAP	w		ZI	8 0				- MS	SURFACE WATER	A- And
Collection	Collection						18 Par 6020 504	.300. JTM 22	6 978			- ×	STORM WALER	P. PRODUCT
DATE	그것	CODE	≥ ₽	A SAMPLE IDENTIFICATION	<u> </u>		A93)	A93)					REMARKS/ADDITIONAL INFORMATION	AL INFORMATION
12/07/16	10:05	*		X HGWC-10	6		-	1				2		
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					k									

2016 12 07 Hammond Huff COCs.xlsx

Sample Condition Upon Receipt Pittsburgh

30205268

Pace Analytical (Client Name:		Pac	<u></u> 2 (Georgia	Project#
Courier: Fed Ex 1	5101 0100		_			
Custody Seal on Cooler/E	Box Present: 🗌 yes		no	Seals	s intact: D yes	□ no
Thermometer Used	NA	Туре	of Ice:		t Blue (Vone)	
Cooler Temperature C	bserved Temp N	<u>,</u> √ \	° C	Corr	ection Factor: UV	+ °C Final Temp: NA °C
Temp should be above freezin						Date and Initials of person examining
			1	F	7	contents: 44 12-12-16
Comments:		Yes	No	N/A		
Chain of Custody Present:		1	<u> </u>	<u> </u>	<u> 1.</u>	- HEADER
Chain of Custody Filled Out				<u></u>	2	
Chain of Custody Relinquis	hed:	V		<u> </u>	3.	
Sampler Name & Signature	on COC:				4.	
Sample Labels match COC					5,	
-Includes date/time/ID/A	nalysis Matrix: いい	r				
Samples Arrived within Hold	d Time:	/			6.	
Short Hold Time Analysis	(<72hr remaining):		1		7.	
Rush Turn Around Time R	lequested:				8.	
Sufficient Volume:					9.	
Correct Containers Used:		/			10.	
-Pace Containers Used:						
Containers Intact:		/			11.	the state of the s
Filtered volume received for				/_	12.	
All containers needing preservation	n have been checked.	/			13.	
All containers needing preserva compliance with EPA recomme	ition are found to be in ndation.					
					Initial when	Date/time of preservation
exceptions: VOA, coliform,	TOC, O&G, Phenolics				completed Lot # of added	(preservation
					preservative	
Headspace in VOA Vials (>	6ṁm):			<u> </u>	14	
Trip Blank Present:					15.	
Trip Blank Custody Seals Pr				_/		
Rad Aqueous Samples Sc	reened > 0.5 mrem/hr				Initial when completed:	Date:
Client Notification/ Resolu	tion:			ng many lynn hind	and have deputy to the property of the propert	
Person Contacted:				Date/	Time:	Contacted By:
Comments/ Resolution:						
			•			
						· · ·
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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

Face Analytical

1/13/2017 Ra-228 33373 DW Ä Analyst: Test: Date: Worklist: Matrix:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample I.D. Sample MS I.D. MS/MSD Decay Corrected Spike Concentration (pCi/mL): MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): Sample Collection Date: Sample MSD I.D. MSD Target Conc. (pCi/L, g, F): Spike I.D. MS Aliquot (L, g, F); Spike uncertainty (calculated); Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Spike Volume Used in MS (mL) 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: Spike Volume Used in MSD (mL Sample Matrix Spike Control Assessment LCSD33373

> (Y or N) .CS33373 1/22/2017

> > Count Date:

Spike I.D.

Spike Concentration (pCi/mL): Volume Used (mL): Aliquot Volume (L. g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated):

0.683 0.406 0.798 3.30 N/A Pass

MB Numerical Performance Indicator: MB Status vs Numerical Indicator;

MB Status vs. MDC:

Laboratory Control Sample Assessment

MB Sample ID

Method Blank Assessment

MB concentration;

M/B Counting Uncertainty

MB MDC

MS Status vs Recovery: MSD Status vs Recovery

16-027 25.495 0.20 0.810 6.292 0.453 ⁷7.232 0.801

2.00

Result (pCi/L, g, F): LCS/LCSD Counting Uncertainty (pCi/L, g, F);

Numerical Performance Indicator:

Percent Recovery:

Status vs Numerical Indicator:

Status vs Recovery

Suplicate Sample Assessment

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Enter Duplicate

sample IDs if other than

30205268003DUP

30205268003

Sample I.D.: Duplicate Sample I.D.

LCS/LCSD in the space below

0.166 0.335 0.662 0.361 See Below ##

Sample Duplicate Result (pC)/L, g, F):
Sample Duplicate Result Counting Uncertainty (pC)/L, g, F):
Are sample and/or duplicate results below MDC?

Duplicate Numerical Performance Indicator; Duplicate Status vs Numerical Indicator:

Sample Result Counting Uncertainty (pCl/L, g, F):

Sample Result (pCi/L, g, F):

-1.972 119.81%

Duplicate RPD:

Rail**

Duplicate Status vs RPD;

Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result Counting Uncertainty (pOi/L, g, F): Sample Matrix Spike Duplicate Result Sample MSD 1.D.

Sample I.D. Sample MS I.D.

(Based on the Percent Recoveries) MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator. MS/ MSD Duplicate Status vs RPD: Duplicate Numerical Performance Indicator:

esults are below the MDC. ## Evaluation of duplicate precision is not applicable if either the sample or duplicate ***Batch must be re-prepped due to unacceptable precision.

Comments:

Ra-228 NELAC DW2 Printed: 1/23/2017 11:59 AM

10

Quality Control Sample Performance Assessment

<u>Analyst Must Manually Enter All Fields Highlighted in Yellow.</u>

Sample Collection Date: Sample I.D. Sample MSD I.D. Sample MS 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 Target Conc.(pCi/l., g, F): MSD Aliquot (L, g, F); MSD Target Conc. (pCi/L, g, F):

MS Aliquot (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):

MSD Numerical Performance Indicator;

MS Numerical Performance Indicator:

MS Percent Recovery:

MSD Percent Recovery:

MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:

MS Status vs Recovery:

MSD Status vs Recoven

1/16/2017 Ra-226 7 Analyst: Test: Date: Worklist: Matrix:

Sample Matrix Spike Control Assessment

0.217 0.506 0.95 0.106 N/A Pass MB Sample ID MB concentration; M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator; MB Status vs Numerical Indicator: Method Blank Assessment

MB Status vs. MDC:

N LCSD33372 CS33372 1/17/2017 Count Date:

Laboratory Control Sample Assessment

16-026 44.671 0.510 9.2 Spike Concentration (pCi/mL): Volume Used (mL) Aliquot Volume (L, g, F)

Spike 1.D.:

7.466 0.856 0.412 Uncertainty (Calculated): LCS/LCSD Counting Uncertainty (pCi/L, g, F): Result (pCi/L, g, F): rarget Conc. (pCI/L, g, F):

-2.68 85.18% Numerical Performance Indicator; Percent Recovery: Status vs Numerical Indicator. Status vs Recovery

Duplicate Sample Assessment

See Below 排 0.180 -0.014 0.099 -0.003 Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):
Are sample and/or duplicate results below MDC?

CS/LCSD in the

space below. other than

Enter Duplicate sample IDs if

30205266001DUP

30205266001

Sample I.D.:

Duplicate Sample I.D.

0.110 Duplicate RPD: Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator; Duplicate Status vs RPD:

Pass ₹

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

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

Comments:

TAR DW QC Printed: 1/23/2017 11:57 AM



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: AZL0435

December 28, 2016

Project: CCR Event

Project #:Plant Hammond

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:

Signature

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, LLC.

All test results relate only to the samples analyzed.



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 28, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HGWA-5	AZL0435-01	Water	12/08/16 10:44	12/09/16 12:05
HGWA-6	AZL0435-02	Water	12/08/16 12:47	12/09/16 12:05
HGWC-18	AZL0435-03	Water	12/08/16 14:17	12/09/16 12:05
FB-2	AZL0435-04	Water	12/08/16 14:40	12/09/16 12:05
FERB-2	AZL0435-05	Water	12/08/16 14:50	12/09/16 12:05



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

Report No.: AZL0435

Client ID: HGWA-5

Date/Time Sampled: 12/8/2016 10:44:00AM

Matrix: Water

December 28, 2016

Project: CCR Event

Lab Number ID: AZL0435-01

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	116	25	10	mg/L	SM 2540 C		1	12/13/16 11:20	12/13/16 11:20	6120356	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	12/22/16 16:55	12/23/16 12:53	6120712	RNB
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	12/22/16 16:55	12/23/16 12:53	6120712	RNB
Sulfate	20	1.0	0.05	mg/L	EPA 300.0		1	12/22/16 16:55	12/23/16 12:53	6120712	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Barium	0.0496	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Boron	0.0083	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Calcium	23.5	5.00	0.311	mg/L	EPA 6020B		10	12/15/16 09:05	12/22/16 17:10	6120445	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Lithium	0.0027	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:18	6120445	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 14:50	6120426	MTC



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

Project: CCR Event

Report No.: AZL0435
Client ID: HGWA-6

Lab Number ID: AZL0435-02

Date/Time Sampled: 12/8/2016 12:47:00PM

Date/Time Received: 12/9/2016 12:05:00PM

December 28, 2016

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	235	25	10	mg/L	SM 2540 C		1	12/13/16 11:20	12/13/16 11:20	6120356	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	12/22/16 16:55	12/23/16 13:14	6120712	RNB
Fluoride	0.06	0.30	0.02	mg/L	EPA 300.0	J	1	12/22/16 16:55	12/23/16 13:14	6120712	RNB
Sulfate	36	1.0	0.05	mg/L	EPA 300.0		1	12/22/16 16:55	12/23/16 13:14	6120712	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Barium	0.162	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Boron	0.0159	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Calcium	49.2	25.0	1.55	mg/L	EPA 6020B		50	12/15/16 09:05	12/22/16 17:47	6120445	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Lithium	0.0100	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:23	6120445	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 14:53	6120426	MTC



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

Report No.: AZL0435

Client ID: HGWC-18

Date/Time Sampled: 12/8/2016 2:17:00PM

Matrix: Water

December 28, 2016

Project: CCR Event

Lab Number ID: AZL0435-03

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1930	25	10	mg/L	SM 2540 C		1	12/13/16 11:20	12/13/16 11:20	6120356	JPT
Inorganic Anions											
Chloride	300	25	1.4	mg/L	EPA 300.0		100	12/22/16 16:55	12/24/16 16:05	6120712	RNB
Fluoride	0.63	0.30	0.02	mg/L	EPA 300.0		1	12/22/16 16:55	12/23/16 13:35	6120712	RNB
Sulfate	910	100	5.1	mg/L	EPA 300.0		100	12/22/16 16:55	12/24/16 16:05	6120712	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Arsenic	0.0070	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Barium	0.0339	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Beryllium	0.0033	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Boron	7.15	0.0400	0.0064	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Cadmium	0.0024	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Calcium	366	50.0	3.11	mg/L	EPA 6020B		100	12/15/16 09:05	12/22/16 17:53	6120445	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Cobalt	0.206	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Lead	0.0017	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Selenium	0.0373	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Lithium	0.0144	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:29	6120445	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 14:55	6120426	MTC



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

Report No.: AZL0435

Client ID: FB-2

Date/Time Sampled: 12/8/2016 2:40:00PM

Matrix: Water

December 28, 2016

Project: CCR Event

Lab Number ID: AZL0435-04

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	12/13/16 11:20	12/13/16 11:20	6120356	JPT
Inorganic Anions											
Chloride	0.15	0.25	0.01	mg/L	EPA 300.0	J	1	12/22/16 16:55	12/23/16 14:17	6120712	RNB
Fluoride	0.03	0.30	0.02	mg/L	EPA 300.0	J	1	12/22/16 16:55	12/23/16 14:17	6120712	RNB
Sulfate	0.47	1.0	0.05	mg/L	EPA 300.0	J	1	12/22/16 16:55	12/23/16 14:17	6120712	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Boron	0.0245	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Calcium	0.0797	0.500	0.0311	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:35	6120445	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 14:57	6120426	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Client ID: FERB-2

Report No.: AZL0435

Date/Time Sampled: 12/8/2016 2:50:00PM

Matrix: Water

December 28, 2016

Project: CCR Event

Lab Number ID: AZL0435-05

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	12/13/16 11:20	12/13/16 11:20	6120356	JPT
Inorganic Anions											
Chloride	0.05	0.25	0.01	mg/L	EPA 300.0	J	1	12/22/16 16:55	12/23/16 14:39	6120712	RNB
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/22/16 16:55	12/23/16 14:39	6120712	RNB
Sulfate	0.14	1.0	0.05	mg/L	EPA 300.0	J	1	12/22/16 16:55	12/23/16 14:39	6120712	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Calcium	0.0321	0.500	0.0311	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Lead	0.0003	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:52	6120445	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 15:00	6120426	MTC



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

Report No.: AZL0435

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120356 - SM 2540 C											
Blank (6120356-BLK1)						Prepare	ed & Anal	yzed: 12/1:	3/16		
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120356-BS1)						Prepare	ed & Anal	yzed: 12/1:	3/16		
Total Dissolved Solids	411	25	10	mg/L	400.00		103	84-108			
Duplicate (6120356-DUP1)		Sou	ırce: AZL04	106-04		Prepare	ed & Anal	yzed: 12/1:	3/16		
Total Dissolved Solids	974	25	10	mg/L		980			0.6	10	
Duplicate (6120356-DUP2)		Sou	ırce: AZL04	135-04		Prepare	ed & Anal	yzed: 12/1:	3/16		
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

December 28, 2016



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Georgia Power 2480 Maner Road Atlanta GA, 30339

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Report No.: AZL0435

December 28, 2016

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch 6120712 - EPA 300.0												
Blank (6120712-BLK1)						Prepare	ed: 12/22/	16 Analyz	ed: 12/23	/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 (6120712-BS1)						Prepare	ed: 12/22/	16 Analyz	ed: 12/23	/16		
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110				
Fluoride	10.5	0.30	0.02	mg/L	10.020		105	90-110				
Sulfate	10.2	1.0	0.05	mg/L	10.020		101	90-110				
Matrix Spike (6120712-MS1) Source: AZL0418-01					Prepare	ed: 12/22/	16 Analyz	ed: 12/23	/16			
Chloride	15.6	0.25	0.01	mg/L	10.010	6.97	87	90-110			QM-02	
Fluoride	9.22	0.30	0.02	mg/L	10.020	0.09	91	90-110				
Sulfate	70.7	1.0	0.05	mg/L	10.020	68.3	24	90-110			QM-02	
Matrix Spike (6120712-MS2)		Sou	ırce: AZL04	135-03		Prepare	ed: 12/22/	16 Analyz	ed: 12/23	/16		
Chloride	182	0.25	0.01	mg/L	10.010	199	NR	90-110			QM-02	
Fluoride	13.4	0.30	0.02	mg/L	10.020	0.63	127	90-110			QM-05	
Sulfate	415	1.0	0.05	mg/L	10.020	440	NR	90-110			QM-02	
Matrix Spike Dup (6120712-MSD1) Source: AZL0418-01						Prepared: 12/22/16 Analyzed: 12/23/16						
Chloride	16.5	0.25	0.01	mg/L	10.010	6.97	95	90-110	5	15		
Fluoride	10.1	0.30	0.02	mg/L	10.020	0.09	100	90-110	9	15		
Sulfate	70.9	1.0	0.05	mg/L	10.020	68.3	25	90-110	0.2	15	QM-02	



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Report No.: AZL0435

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120426 - EPA 7470A											
Blank (6120426-BLK1)						Prepare	ed & Anal	yzed: 12/1	5/16		
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6120426-BS1)						Prepare	ed & Anal	yzed: 12/1	5/16		
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3	•	98	80-120			
Matrix Spike (6120426-MS1)		So	urce: AZL040	06-04		Prepare	ed & Anal	yzed: 12/1	5/16		
Mercury	0.00243	0.00050	0.000041	mg/L	2.5000E-3	ND	97	75-125	0, 10		
Matrix Spike Dup (6120426-MSD1)		So	urce: AZL040	06-04		Prenar	ed & Anal	yzed: 12/1	5/16		
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3	ND	97	75-125	0.3	20	
Post Spike (6120426-PS1)		So	urce: AZL040	16-04		Propar	od & Anal	yzed: 12/1	5/16		
Mercury	1.77		uice. AZEOTO	ug/L	1.6667	-0.0161	106	80-120	3/10		
•				J							
Batch 6120445 - EPA 3005A											
Blank (6120445-BLK1)						Prepare	ed: 12/15/	16 Analyz	ed: 12/16	/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							
Littiiuiii	IND	0.0000	0.0021	mg/L							

December 28, 2016



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

Report No.: AZL0435

December 28, 2016

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120445 - EPA 3005A											
LCS (6120445-BS1)						Prepare	ed: 12/15/	16 Analyz	ed: 12/16/	16	
Antimony	0.116	0.0030	0.0008	mg/L	0.10000		116	80-120			
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000		105	80-120			
Barium	0.105	0.0100	0.0004	mg/L	0.10000		105	80-120			
Beryllium	0.111	0.0030	0.00008	mg/L	0.10000		111	80-120			
Boron	1.05	0.0400	0.0064	mg/L	1.0000		105	80-120			
Cadmium	0.104	0.0010	0.00007	mg/L	0.10000		104	80-120			
Calcium	1.07	0.500	0.0311	mg/L	1.0000		107	80-120			
Chromium	0.104	0.0100	0.0009	mg/L	0.10000		104	80-120			
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Copper	0.103	0.0250	0.0005	mg/L	0.10000		103	80-120			
Lead	0.104	0.0050	0.0001	mg/L	0.10000		104	80-120			
Molybdenum	0.106	0.0100	0.0017	mg/L	0.10000		106	80-120			
Nickel	0.105	0.0100	0.0006	mg/L	0.10000		105	80-120			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000		102	80-120			
Silver	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Thallium	0.105	0.0010	0.0002	mg/L	0.10000		105	80-120			
Vanadium	0.107	0.0100	0.0071	mg/L	0.10000		107	80-120			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000		106	80-120			
Lithium	0.106	0.0500	0.0021	mg/L	0.10000		106	80-120			
Matrix Spike (6120445-MS1)		Sou	ırce: AZL041	18-01		Prepare	ed: 12/15/	16 Analyz	ed: 12/16/	16	
Antimony	0.115	0.0030	0.0008	mg/L	0.10000	ND.	115	75-125			
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000	ND	105	75-125			
Barium	0.174	0.0100	0.0004	mg/L	0.10000	0.0781	95	75-125			
Beryllium	0.0958	0.0030	0.00008	mg/L	0.10000	ND	96	75-125			
Boron	1.01	0.0400	0.0064	mg/L	1.0000	0.224	79	75-125			
Cadmium	0.104	0.0010	0.00007	mg/L	0.10000	ND	104	75-125			
Calcium	78.8	25.0	1.55	mg/L	1.0000	74.0	480	75-125			QM-02
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125			
Cobalt	0.108	0.0100	0.0005	mg/L	0.10000	0.0005	107	75-125			
Copper	0.102	0.0250	0.0005	mg/L	0.10000	ND	102	75-125			
Lead	0.101	0.0050	0.0001	mg/L	0.10000	ND	101	75-125			
Molybdenum	0.110	0.0100	0.0017	mg/L	0.10000	ND	110	75-125			
Nickel	0.106	0.0100	0.0006	mg/L	0.10000	ND	106	75-125			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000	ND	102	75-125			
Silver	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000	ND	104	75-125			
Vanadium	0.107	0.0100	0.0071	mg/L	0.10000	ND	107	75-125			
Zinc	0.111	0.0100	0.0021	mg/L	0.10000	ND	111	75-125			
Lithium	0.0967	0.0500	0.0021	mg/L	0.10000	ND	97	75-125			



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Georgia Power 2480 Maner Road Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2016

Report No.: AZL0435

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120445 - EPA 3005A											
Matrix Spike Dup (6120445-MSD1)		Sou	urce: AZL04	18-01		Prepar	ed: 12/15/	16 Analyz	ed: 12/16	/16	
Antimony	0.118	0.0030	0.0008	mg/L	0.10000	ND.	118	75-125	3	20	
Arsenic	0.109	0.0050	0.0016	mg/L	0.10000	ND	109	75-125	3	20	
Barium	0.176	0.0100	0.0004	mg/L	0.10000	0.0781	98	75-125	1	20	
Beryllium	0.0929	0.0030	0.00008	mg/L	0.10000	ND	93	75-125	3	20	
Boron	0.979	0.0400	0.0064	mg/L	1.0000	0.224	76	75-125	3	20	
Cadmium	0.104	0.0010	0.00007	mg/L	0.10000	ND	104	75-125	0.4	20	
Calcium	81.3	25.0	1.55	mg/L	1.0000	74.0	728	75-125	3	20	QM-02
Chromium	0.106	0.0100	0.0009	mg/L	0.10000	ND	106	75-125	2	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	0.0005	102	75-125	5	20	
Copper	0.101	0.0250	0.0005	mg/L	0.10000	ND	101	75-125	1	20	
Lead	0.101	0.0050	0.0001	mg/L	0.10000	ND	101	75-125	0.5	20	
Molybdenum	0.112	0.0100	0.0017	mg/L	0.10000	ND	112	75-125	2	20	
Nickel	0.103	0.0100	0.0006	mg/L	0.10000	ND	103	75-125	3	20	
Selenium	0.104	0.0100	0.0010	mg/L	0.10000	ND	104	75-125	2	20	
Silver	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125	1	20	
Thallium	0.103	0.0010	0.0002	mg/L	0.10000	ND	103	75-125	1	20	
Vanadium	0.108	0.0100	0.0071	mg/L	0.10000	ND	108	75-125	0.3	20	
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	ND	106	75-125	4	20	
Lithium	0.0925	0.0500	0.0021	mg/L	0.10000	ND	92	75-125	4	20	
Post Spike (6120445-PS1)		Sou	urce: AZL04	18-01		Prepar	ed: 12/15/	16 Analyz	ed: 12/16	/16	
Antimony	109			ug/L	100.00	0.375	108	80-120			
Arsenic	110			ug/L	100.00	1.00	109	80-120			
Barium	178			ug/L	100.00	78.1	100	80-120			
Beryllium	96.0			ug/L	100.00	0.0417	96	80-120			
Boron	1010			ug/L	1000.0	224	78	80-120			QM-02
Cadmium	106			ug/L	100.00	0.0408	106	80-120			
Calcium	81800			ug/L	1000.0	74000	782	80-120			QM-02
Chromium	103			ug/L	100.00	0.152	103	80-120			
Cobalt	104			ug/L	100.00	0.524	103	80-120			
Copper	101			ug/L	100.00	0.266	101	80-120			
Lead	99.8			ug/L	100.00	0.0576	100	80-120			
Molybdenum	110			ug/L	100.00	0.410	110	80-120			
Nickel	103			ug/L	100.00	0.424	103	80-120			
Selenium	105			ug/L	100.00	0.274	105	80-120			
Silver	101			ug/L	100.00	0.0079	101	80-120			
Thallium	102			ug/L	100.00	0.0281	102	80-120			
Vanadium	109			ug/L	100.00	-1.15	109	80-120			
Zinc	108			ug/L	100.00	1.45	106	80-120			
Lithium	92.8			ug/L	100.00	0.782	92	80-120			
				3		-		-			



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 28, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL

BRL - Not Detected at levels equal to or greater than the RL

RL - Reporting Limit MDL - Method Detection Limit

SOP - Method run per Pace Standard Operating Procedure

CFU - Colony Forming Units

DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- **QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
 - J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

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

CHAIN OF CUSTODY RECORD

P

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

															ŗ
CLIENT NAME:							-	ANAL	YSIS RE	ANALYSIS REQUESTED	ا ۾			CONTAINER TYPE PRE	_
Georgia Power					CONTAINER TYPE:	YPE	\dashv	۵.	<u>а</u>		-		V	P - PLASTIC	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	ESS/PHON	JE NUMBEF	₹/FA	(NUMBER:	PRESERVATION:	ä	3		9		-		M:	A - AMBER GLASS	
241 Ralph McGill Bivd SE B10185	HII Blvd SE	B10185			# of								(1)		
Atlanta, GA 30308	308													V - VOA VIAL	
404-506-7239	}				o									S - STERILE	ပ
REPORT TO:				CC: Maria Padilla	0								9		
	Joju Abraham	nam			z									7 - ≤6°C not frozen	
REQUESTED COMPLETION DATE:	COMPLETI	ION DATE:		PO#:	-								2		7
				laburch@southernco.com	4	/ \l	All						9	*MATRIX CODES:	_
PROJECT NAME/STATE:	ME/STATE:				_	<u>- 11</u>	וויפו	()					2	!	
		Plant Ha	amm(Plant Hammond - AP 1&2	2 4	,	. dd						M 11	BE DW - DRINKING WATER S - SOIL	
PROJECT #:					ı œ	, <u>.</u>	(0/	WS						GW - GROUNDWATER	
				CCH	တ		Þ Z/(80					**************************************	SW - SURFACE WATER	
Collection	Collection	MATRIX	ပဝ	G SAMPI E IDENTICICATION		- 5, 9	1s Par ,6020 ,SO,	. 300.1	6 91/8					ST - STORM WATER L - LIQUID W - WATER P - PRODUCT	
_	TIME	CODE	≥ •	A SAMPLE IDENTIFICATION B	<u></u>		A93)	A93)						REMARKS/ADDITIONAL INFORMATION	
12/08/16	10:44	W		X HGWA-5	3		-	-	1						
12/08/16	12:47	W		X HGWA-6	3		-	-					<u> </u>		
12/08/16	14:17	*			က	_	-	-	_				6		
12/08/16	14:40	*		X FB-2	က	 	-	_	-						1
12/08/16	14:50	*		X FERB-2	ო		-	1					W		\neg
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SAMPLED BY AND TITLE T.Wardell 77/	AND TITE	W.Virgo	1	, DATE/TIME:	RELINQUISHED BY:	UISHE	D BY:	My	7	A	7√a	· ·	1205	PAB#: A 21 O CK S	
RECEIVED BY:	. ,	' ≥		DATE/TIME:	RELINGUISHED BY:	UISHE	D BY:	/)			DAT	DATE/TIME:		Enterpolitio (LIMS)	
Malo and Annual Market	igy))				SAMPLE SHIPPED VIA:	SHIP	ITESHIPPEDVIA FEDIEX USPS	USP	1000000000	GOURIER		∕odenπ==-onHer-lis=	SE 183		
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2016 12 08 Hammond Huff COCs.xlsx

Page 14 of 15



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

LOG-IN CHECKLIST

Printed: 12/12/2016 10:56:35AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event Work Order: AZL0435

Date Received: 12/09/16 12:05 **Logged In By:** Mohammad M. Rahman

OBSERVATIONS

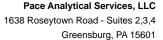
#Samples: 5 **#Containers:** 15

Minimum Temp(C): 0.5 Maximum Temp(C): 0.5 Custody Seal(s) Used: N/A

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	NO
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:



(724)850-5600



January 23, 2017

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond

Pace Project No.: 30205173

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on December 12, 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

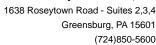
Sugnely Sellins

jacquelyn.collins@pacelabs.com

Project Manager

Enclosures







CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30205173

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

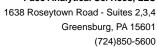
South Dakota Certification

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

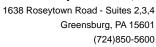




SAMPLE SUMMARY

Project: Plant Hammond Pace Project No.: 30205173

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30205173001	HGWA-5	Water	12/08/16 10:44	12/12/16 09:20
30205173002	HGWA-6	Water	12/08/16 12:47	12/12/16 09:20
30205173003	HGWC-18	Water	12/08/16 14:17	12/12/16 09:20
30205173004	FB-2	Water	12/08/16 14:40	12/12/16 09:20
30205173005	FERB-2	Water	12/08/16 14:50	12/12/16 09:20

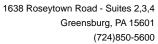




SAMPLE ANALYTE COUNT

Project: Plant Hammond Pace Project No.: 30205173

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30205173001	HGWA-5	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205173002	HGWA-6	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205173003	HGWC-18	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205173004	FB-2	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205173005	FERB-2	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1

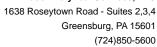




ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205173

Pace Project No.: 30205173	3					
Sample: HGWA-5	Lab ID: 30205		Received:	12/12/16 09:20 Mat	rix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0453 ± 0.134 (0.422)	pCi/L	01/17/17 09:29 1	3982-63-3	
Radium-228	EPA 9320	C:80% T:NA 0.905 ± 0.432 (0.722) C:64% T:93%	pCi/L	01/22/17 16:00 1	5262-20-1	
Total Radium	Total Radium Calculation	0.905 ± 0.566 (1.14)	pCi/L	01/23/17 12:09 7	440-14-4	
Sample: HGWA-6	Lab ID: 30205	173002 Collected: 12/08/16 12:47	Received:	12/12/16 09:20 Mat	rix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.120 ± 0.152 (0.306)	pCi/L	01/17/17 09:29 1	3982-63-3	
Radium-228	EPA 9320	C:86% T:NA 0.301 ± 0.395 (0.843) C:70% T:82%	pCi/L	01/22/17 16:00 1	5262-20-1	
Total Radium	Total Radium Calculation	0.421 ± 0.547 (1.15)	pCi/L	01/23/17 12:09 7	440-14-4	
Sample: HGWC-18	Lab ID: 30205		Received:	12/12/16 09:20 Mat	rix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.945 ± 0.345 (0.297) C:95% T:NA	pCi/L	01/17/17 09:29 1	3982-63-3	
Radium-228	EPA 9320	1.26 ± 0.570 (0.974) C:64% T:89%	pCi/L	01/22/17 16:02 1	5262-20-1	
Total Radium	Total Radium Calculation	2.21 ± 0.915 (1.27)	pCi/L	01/23/17 12:09 7	440-14-4	
Sample: FB-2	Lab ID: 30205	173004 Collected: 12/08/16 14:40	Received:	12/12/16 09:20 Mat	rix: Water	
PWS:	Site ID:	Sample Type:		,, .0 000	rrate.	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0661 ± 0.159 (0.382)	pCi/L	01/17/17 09:29 1	3982-63-3	
Radium-228	EPA 9320	C:79% T:NA 0.350 ± 0.497 (1.07) C:57% T:87%	pCi/L	01/22/17 16:02 1	5262-20-1	
Total Radium	Total Radium Calculation	0.416 ± 0.656 (1.45)	pCi/L	01/23/17 12:09 7	440-14-4	
Sample: FERB-2 PWS:	Lab ID: 30205 Site ID:	173005 Collected: 12/08/16 14:50 Sample Type:	Received:	12/12/16 09:20 Mat	rix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.121 ± 0.196 (0.435)	pCi/L	01/17/17 09:29		
Radium-228	EPA 9320	C:81% T:NA 0.168 ± 0.401 (0.892) C:64% T:87%	pCi/L	01/22/17 16:02 1		





ANALYTICAL RESULTS - RADIOCHEMISTRY

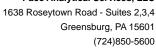
Project: Plant Hammond Pace Project No.: 30205173

Sample: FERB-2 Lab ID: 30205173005 Collected: 12/08/16 14:50 Received: 12/12/16 09:20 Matrix: Water

PWS: Site ID: Sample Type:

Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual

Calculation





Project: Plant Hammond

Pace Project No.: 30205173

QC Batch: 245742 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30205173003, 30205173004, 30205173005

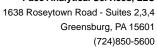
METHOD BLANK: 1208865 Matrix: Water

Associated Lab Samples: 30205173003, 30205173004, 30205173005

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.683 \pm 0.424 (0.798) C:67% T:93% pCi/L 01/22/17 16:02

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.





Project: Plant Hammond

Pace Project No.: 30205173

QC Batch: 245740 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30205173001, 30205173002

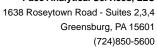
METHOD BLANK: 1208859 Matrix: Water

Associated Lab Samples: 30205173001, 30205173002

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.612 \pm 0.377 (0.695) C:68% T:93% pCi/L 01/22/17 12:53

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





Project: Plant Hammond

Pace Project No.: 30205173

QC Batch: 245741 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30205173003, 30205173004, 30205173005

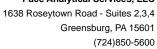
METHOD BLANK: 1208863 Matrix: Water

Associated Lab Samples: 30205173003, 30205173004, 30205173005

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 0.106 \pm 0.218 (0.506) C:79% T:NA pCi/L 01/17/17 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.





Project: Plant Hammond

Pace Project No.: 30205173

QC Batch: 245739 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30205173001, 30205173002

METHOD BLANK: 1208851 Matrix: Water

Associated Lab Samples: 30205173001, 30205173002

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 $0.0563 \pm 0.118 \quad (0.277) \text{ C:97\% T:NA}$ pCi/L $01/17/17 \quad 08:09$

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



QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30205173

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

Date: 01/23/2017 01:56 PM

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.

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Pace Analytical

	Workorder: AZL0435	>	Workorder Name: P	Plant Hammond	Owner Re	Owner Received Date:		Results F	Results Requested By: 1/10/2017	By: 1/10,	2017
Ret	Report To:		Subcontract To:	0.				Requested Analysis	nalysis		
Bet	Betsy McDaniel		Pace - Pittsburgh	rgh			ls:				
Рас	Pace Analytical Atlanta		1638 Roseytown R	wn Road				○ 0:#○	. F MOO	ر ئ	
11	110 Technology Parkway		Stes. 2,3,4					WO#: 502021/3	TCOV	2	
Pe	Peachtree Corners, GA 30092		Greensburg, PA 15	A 15601		-					
Ph	Phone (770)-734-4200		Phone (724) 850-5600	850-5600	Prese	Preserved Containers	977 W	005473		;	
Iter	tem Sample ID	Sample Type	Collect Date/Time Lab II		Matrix Matrix		nibeA		-		AB USE ONLY
L	HGWA-5	9	12/8/2016 10:44	AZL0435-01	GW 1		X				8
7	HGWA-6	9	12/8/2016 12:47	AZL0435-02	GW 1		×				002
m	HGWC-18	9	12/8/2016 14:17	AZL0435-03	GW 1		×				033
4	FB-2	9	12/8/2016 14:40	AZL0435-04	W 1		×				A A
2	FERB-2	9	12/8/2016 14:50	AZL0435-05	W 1		×				000
9											
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150	Fransfers Released By		Date/Time	ime Received By	by	Date	Date/Time		Comments	nts	
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7											
ന	-111 - 12-12										
]										-	

Sample Intact (P) 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 Received on Ice Y or N This chain of custody is considered complete as is since this information is available in the owner laboratory. Custody Seal Y or (N) ပ Cooler Temperature on Receipt

Eriday, June 17, 2016 11:01:34 AM es constant of the constant

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

5

CHAIN OF CUSTODY RECORD / Pace Analytical 110 TECHNOLC

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

5 - NaOHZnAc, ≤6°C 6 - Na₂S₂O₃, ≤6°C 7 - ≤6°C not frozen 1 - HCl, ട്ര°C 2 - H₂SO₄ ട്ര°C 3 - HNO₃ REMARKS/ADDITIONAL INFORMATION 4 - NaOH, s6°C P. PRODUCT **PRESERVATION** SLUDGE A. AIR L. LIQUID St. SLUDGI SD. SOLID S- SOF MATRIX CODES: DW - DRINKING WATER SW - SURFACE WATER GW - GROUNDWATER ST. STORM WATER W. WATER MW - WASTEWATER A - AMBER GLASS G- CLEAR GLASS CONTAINER TYPE V - VOA VIAL S - STERILE O - OTHER P - PLASTIC - WATER 9 7205 aNLLAZIO ANALYSIS REQUESTED (SW-846 9315/9320) Radlum 226 & 228 (EPA 300.0 & SM 2540C) CI, F, SO, & TOS RELINOUISHED BY: RELINQUISHED BY: CONTAINER TYPE PRESERVATION: **t**o# ო m ø ന laburch@southernco.com SAMPLE IDENTIFICATION Heath McCorkle HGWA-6 HGWC-18 HGWA-5 FERB-2 Maria Padilla FB-2 DATE/TIME: DATE/TIME: Plant Hammond - AP 1&2 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER 8 ÿ GKKB × × × × × W.Virgo W/TV 0024 Joju Abraham REQUESTED COMPLETION DATE: MATRIX CODE 241 Ralph McGIII Blwd SE B10185 ₹ ₹ 3 3 ₹ SAMPLED BY AND TITLE: PROJECT NAME/STATE: Collection 14:17 14:40 4:50 TIME 10:44 12:47 Atlanta, GA 30308 CLIENT NAME Seorgia Power 104-506-7239 REPORT TO: PROJECT #: Collection DATE 12/08/16 12/08/16 12/08/16 12/08/16 12/08/16

2016 12 08 Hammond Huff COCs.xlsx

Sample Condition Upon Rece	ipt P	ittsb	urgl	30	205173 -
Pace Analytical Client Name:		Pac	e (Georgia	Project#
Courier: Fed Ex UPS USPS Clien Tracking #:					no
				Blue None	
Thermometer Used NV4 Cooler Temperature Observed Temp N					°C Final Temp: NIA °C.
Cooler Temperature Observed Lemp Number Temp should be above freezing to 6°C) V-\		COIL	ection ractor. NY	· · · · · · · · · · · · · · · · · · ·
ramp strong he spoke meesting to a C					Date and Initials of person examining contents: Well 12-12-16
Comments:	Yes	No	N/A	7	contents: WA 12 12 13
Chain of Custody Present:				1.	
Chain of Custody Filled Out:	V			2.	
Chain of Custody Relinquished:			Ĭ	3.	
Sampler Name & Signature on COC:	1			4.	
Sample Labels match COC:	1			5.	
-Includes date/time/ID/Analysis Matrix: W	+			1	
Samples Arrived within Hold Time:	1			6.	
Short Hold Time Analysis (<72hr remaining):		J		7.	
Rush Turn Around Time Requested:				8.	
Sufficient Volume:			<u> </u>	9.	
Correct Containers Used:	1			10.	
-Pace Containers Used:					
Containers Intact:	/			11.	
Filtered volume received for Dissolved tests			/	12.	
All containers needing preservation have been checked.	/			13. ~ W 12	
All containers needing preservation are found to be in	/			13. PHL2	
compliance with EPA recommendation.				1 - i - i - i - i - i - i - i - i - i -	Date/time of
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when O	preservation
				Lot # of added	
				preservative	
Headspace in VOA Vials (>6mm):			<u> </u>	14.	
Trip Blank Present:				15. 	,
Trip Blank Custody Seals Present Rad Aqueous Samples Screened > 0.5 mrem/hr		<u> </u>		Initial when	12 12 1/
Rau Aquebus Samples Scientific Stomenim			سلم خانت ادر برو	completed: MITA	Date: 12-13-16
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.

/13/2017 Ra-228 33371 DW Analyst: Test: Date: Worklist: Matrix:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample MSD I.D. Spike I.D.: Sample I.D. Sample MS I.D. MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): Sample Collection Date; MS/MSD Decay Corrected Spike Concentration (pCi/mL); Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL); Sample Matrix Spike Control Assessment

SD (Y or N)? LCS33371

0.360 0.695 3.33 N/A Pass

M/B Counting Uncertainty: MB MDC: MB concentration:

MB Sample ID

Method Blank Assessment

MB Numerical Performance Indicator: MB Status vs Numerical Indicator:

MB Status vs. MDC;

Laboratory Control Sample Assessment

1/22/2017

Count Date:

Spike I.D.

16-027 25.496 0.20 0.808 6.307 0.454 6.561

Aliquot Volume (L, g, F): Farget Conc. (pCi/L., g, F):

Volume Used (mL)

Uncertainty (Calculated):

Spike Concentration (pCi/mL):

Result (pC/I/L, g, F):
LCS/LCSD Counting Uncertainty (pC/I/L, g, F):
Numerical Performance Indicator:

Percent Recovery:

Status vs Numerical Indicator:

Status vs Recovery

Duplicate Sample Assessment

MOD larget 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, q, 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:
Z	100033374	2000										-			

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

Duplicate Sample I.D. 30205168004DUP

30205168004

Sample I.D.:

30205168004 205168004DUP

-0.382 24.32%

Duplicate RPD:

Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator:

Pass Α/N

Duplicate Status vs RPD:

See Below 排

0.344 0.356 0.439 0.335

Sample Result Counting Uncertainty (p.Cift., g, F):
Sample Duplicate Result (p.Cift., g, F):
Sample Duplicate Result (p.Cift., g, F):
Are sample and/or duplicate results below MDC?

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

Comments:

Ra-228 NELAC DW2 Printed: 1/23/2017 12:04 PM

Face Analytical"

Quality Control Sample Performance Assessment

Ra-226 LAL 1/16/2017 Test Worklist: Matrix: Date: Analyst:

33370 DW

Method Blank Assessment

0.056 0.118 0.277 0.94 N/A Pass MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC: MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Status vs. MDC

Sample Collection Date: Sample Matrix Spike Control Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample MS I.D. Sample MSD I.D. MS/MSD Decay Corrected Spike Concentration (pCi/mL); Spike I.D.:

Sample I.D.

Spike Volume Used in MS (mL); Spike Volume Used in MSD (mL):

MSD Aliquot (L, g, F): MS Target Conc.(pCl/L, g, F): MSD Target Conc. (pCi/L, g, F): MS Aliquot (L, g, F):

Spike uncertainty (calculated): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Result

LCSD33370

JD (Y or N)?

Laboratory Control Sample Assessment

1/17/2017

Count Date:

Spike I.D.

Spike Concentration (pCi/mL): Volume Used (mL): Aliquot Volume (L, g, F): Uncertainty (Calculated):

16-026 44.671 0.10 0.506 8.828 0.415 7.998

0.881 30.60%

Result (pCi/L, g, F):

Target Conc. (pCi/L, g, F):

LCS/LCSD Counting Uncertainty (pCi/L, g, F): Numerical Performance Indicator:

-1.67

Percent Recovery:

Status vs Numerical Indicator: Status vs Recovery

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): MSD Numerical Performance Indicator; MS Numerical Performance Indicator.

MS Percent Recovery MSD Percent Recovery:

MS Status vs Numerical Indicator

MS Status vs Recovery, MSD Status vs Numerical Indicator MSD Status vs Recover

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D. Sample MS I.D.

Sample MSD I.D.

LCS/LCSD in the

30205168004DUP 0.189 0.188 0.204 0.195

Sample Result (pCift., g, F):
Sample Result Counting Uncertainty (pCift., g, F):
Sample Duplicate Result (pCift., g, F):
Are sample and/or duplicate results below MDC?

See Below #

-0.110

7.72%

Duplicate RPD:

Duplicate Numerical Performance Indicator: Duplicate Status vs Numerical Indicator:

N/A Pass

space below, other than

Enter Duplicate

30205168004

Sample I.D.:

Duplicate Sample Assessment

Duplicate Sample I.D.

sample IDs if

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/ MSD Duplicate RPD: Duplicate Numerical Performance Indicator;

MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:

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

Duplicate Status vs RPD:

Comments;

Printed: 1/23/2017 12:04 PM TAR DW QC

^gace Analytical

1/13/2017 33373 DW ₹ Test: Date: Worklist: Matrix: Analyst:

Analyst Must Manually Enter All Fields Highlighted in Yellow.

MS/MSD Decay Corrected Spike Concentration (pClimL): Spike Volume Used in MS (mL); Sample Collection Date: Sample I.D. Sample MS I.D. MSD Aliquot (L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: Sample MSD I.D. Spike I.D. Spike Volume Used in MSD (mL): MS Aliquot (L, g, F); MS Target Conc.(pCi/L, g, F): MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated): Sample Result Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: Sample Matrix Spike Duplicate Result Sample Matrix Spike Control Assessment N LCSD33373

LCSD (Y or N)? LCS33373

Count Date: Spike I.D.:

0.683 0.406 0.798 3.30 N/A Pass

MB MDC

MB Numerical Performance Indicator: MB Status vs Numerical Indicator;

MB Status vs. MDC;

Laboratory Control Sample Assessment

MB Sample ID

Method Blank Assessment

MB concentration; M/B Counting Uncertainty: 1/22/2017 16-027 25.495 0.20 0.810 6.292 0.453 7.232 0.801

Spike Concentration (pCi/mL): Aliquot Volume (L, g, F): Target Conc. (pCl/L, g, F): Uncertainty (Calculated):

Volume Used (mL):

2.00

Percent Recovery:

Status vs Numerical Indicator:

Status vs Recovery

Duplicate Sample Assessmen

Result (pC/I/L, 9, F):
LCS/LCSD Counting Uncertainty (pCi/L, g, F):
Numerical Performance Indicator:

Enter Duplicate

Sample I.D.: 30205268003 Duplicate Sample I.D. 30205268003DUP

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

0.166 0.335 0.662 0.361

Sample Result Counting Uncertainty (pCl/I., g, F): Sample Duplicate Result (pCl/I., g, F):

Sample Result (pCI/L, g, F):

Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):
Are sample and/or duplicate results below MDC?

See Below 排

-1.972 119.81%

Duplicate RPD:

Duplicate Numerical Performance Indicator. Duplicate Status vs Numerical Indicator:

N/A Fail:

Duplicate Status vs RPD:

Sample I.D. Sample MS I.D. Sample MSD I.D. Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F). Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result:

(Based on the Percent Recoveries) MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator: Duplicate Numerical Performance Indicator: MS/ MSD Duplicate Status vs RPD:

results are below the MDC. ## Evaluation of duplicate precision is not applicable if either the sample or duplicat ϕ'_i

Comments:

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

Ra-228 NELAC DW2 Printed: 1/23/2017 11:59 AM





October 14, 2016

Maria Padilla GA Power 2480 Maner Rd Atlanta, GA 30339

RE: Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

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.

Report resissued 10/14/16 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

Sugarlybellin

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

Plant Hammond AP 1&2 CCR Project:

Pace Project No.: 30195129

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

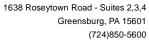
Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C Wisconsin Certification

Wyoming Certification #: 8TMS-L



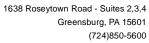


SAMPLE SUMMARY

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195129001	HGWC-7	Water	09/01/16 09:20	09/06/16 08:50
30195129002	HGWC-8	Water	09/01/16 08:50	09/06/16 08:50
30195129003	HGWC-9	Water	09/01/16 09:32	09/06/16 08:50
30195129004	HGWC-10	Water	09/01/16 10:18	09/06/16 08:50
30195129005	HGWC-11	Water	09/01/16 10:48	09/06/16 08:50
30195129006	HGWC-12	Water	09/01/16 11:34	09/06/16 08:50
30195129007	HGWC-13	Water	09/01/16 11:20	09/06/16 08:50
30195129008	HGWC-14	Water	09/01/16 12:07	09/06/16 08:50
30195129009	HGWC-15	Water	09/01/16 12:58	09/06/16 08:50
30195129010	HGWC-16	Water	09/01/16 12:50	09/06/16 08:50
30195129011	HGWC-17	Water	09/01/16 14:45	09/06/16 08:50
30195129012	HGWC-18	Water	09/01/16 14:32	09/06/16 08:50
30195129013	FB-1	Water	09/01/16 09:21	09/06/16 08:50
30195129014	FB-2	Water	09/01/16 12:18	09/06/16 08:50
30195129015	FERB-1	Water	09/01/16 14:00	09/06/16 08:50
30195129016	FERB-2	Water	09/01/16 15:28	09/06/16 08:50
30195129017	DUP-1	Water	09/01/16 00:01	09/06/16 08:50
30195129018	DUP-2	Water	09/01/16 00:01	09/06/16 08:50





SAMPLE ANALYTE COUNT

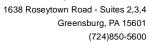
Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195129001	HGWC-7	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129002	HGWC-8	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129003	HGWC-9	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129004	HGWC-10	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129005	HGWC-11	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129006	HGWC-12	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129007	HGWC-13	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129008	HGWC-14	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129009	HGWC-15	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129010	HGWC-16	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129011	HGWC-17	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129012	HGWC-18	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129013	FB-1	EPA 9315	WRR	1

REPORT OF LABORATORY ANALYSIS

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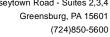


SAMPLE ANALYTE COUNT

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129014	FB-2	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129015	FERB-1	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129016	FERB-2	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129017	DUP-1	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30195129018	DUP-2	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1





ANALYTICAL RESULTS - RADIOCHEMISTRY

Plant Hammond AP 1&2 CCR Project:

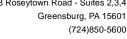
Pace Project No.: 30195129

Sample: HGWC-7 Lab ID: 30195129001 Collected: 09/01/16 09:20 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 EPA 9315 0.125 ± 0.115 (0.216) Radium-226 09/28/16 09:33 pCi/L 13982-63-3 C:89% T:NA EPA 9320 0.578 ± 0.487 Radium-228 (0.971)pCi/L 09/23/16 12:39 15262-20-1 C:65% T:72% 10/04/16 15:09 7440-14-4 Total Radium Total Radium 0.703 ± 0.602 (1.19) pCi/L Calculation Sample: HGWC-8 Lab ID: 30195129002 Collected: 09/01/16 08:50 Received: 09/06/16 08:50 Matrix: Water PWS: Site ID: Sample Type: Act ± Unc (MDC) Carr Trac **Parameters** Method Units Analyzed CAS No. Qual EPA 9315 0.169 ± 0.119 (0.200) Radium-226 pCi/L 09/28/16 09:34 13982-63-3 C:94% T:NA EPA 9320 0.649 ± 0.451 (0.866)09/23/16 12:39 15262-20-1 Radium-228 pCi/L C:65% T:83% Total Radium Total Radium $0.818 \pm 0.570 \quad (1.07)$ pCi/L 10/04/16 15:09 7440-14-4 Calculation Sample: HGWC-9 Lab ID: 30195129003 Collected: 09/01/16 09:32 Received: 09/06/16 08:50 PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units CAS No. Qual Analyzed EPA 9315 0.132 ± 0.114 (0.209) Radium-226 pCi/L 09/28/16 09:34 13982-63-3 C:91% T:NA Radium-228 EPA 9320 0.630 ± 0.400 (0.733)pCi/L 09/23/16 12:40 15262-20-1 C:65% T:82% Total Radium Total Radium 0.762 ± 0.514 (0.942) pCi/L 10/04/16 15:09 7440-14-4 Calculation Sample: HGWC-10 Lab ID: 30195129004 Collected: 09/01/16 10:18 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 EPA 9315 0.139 ± 0.104 (0.167) 09/28/16 09:34 Radium-226 pCi/L 13982-63-3 C:90% T:NA EPA 9320 Radium-228 0.705 ± 0.428 pCi/L 09/23/16 12:40 15262-20-1 C:72% T:74% Total Radium Total Radium pCi/L 10/04/16 15:09 7440-14-4 $0.844 \pm 0.532 \quad (0.945)$ Calculation Collected: 09/01/16 10:48 Sample: HGWC-11 Lab ID: 30195129005 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 EPA 9315 0.120 ± 0.113 (0.215) Radium-226 pCi/L 09/28/16 09:34 13982-63-3 C:92% T:NA FPA 9320 0.141 ± 0.390 Radium-228 (0.872)pCi/L 09/23/16 12:42 15262-20-1

REPORT OF LABORATORY ANALYSIS

C:75% T:82%

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Matrix: Water



ANALYTICAL RESULTS - RADIOCHEMISTRY

Collected: 09/01/16 10:48

Received: 09/06/16 08:50

pCi/L

pCi/L

09/23/16 16:42 15262-20-1

10/04/16 15:09 7440-14-4

Lab ID: 30195129005

EPA 9320

Total Radium

Calculation

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

Sample: HGWC-11

Radium-228

Total Radium

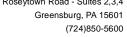
PWS: Site ID: Sample Type: **Parameters** Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Total Radium Total Radium 0.261 ± 0.503 (1.09) pCi/L 10/04/16 15:09 7440-14-4 Calculation Sample: HGWC-12 Lab ID: 30195129006 Collected: 09/01/16 11:34 Received: 09/06/16 08:50 PWS: Site ID: Sample Type: Method Act ± Unc (MDC) Carr Trac **Parameters** Units Analyzed CAS No. Qual EPA 9315 0.309 ± 0.163 (0.235) Radium-226 09/28/16 09:34 13982-63-3 pCi/L C:81% T:NA Radium-228 EPA 9320 0.924 ± 0.412 (0.640) pCi/L 09/23/16 16:42 15262-20-1 C:73% T:78% Total Radium Total Radium 1.23 ± 0.575 (0.875) pCi/L 10/04/16 15:09 7440-14-4 Calculation Sample: HGWC-13 Lab ID: 30195129007 Collected: 09/01/16 11:20 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 EPA 9315 0.288 ± 0.160 (0.243) Radium-226 09/28/16 09:34 13982-63-3 pCi/L C:94% T:NA EPA 9320 0.307 ± 0.321 Radium-228 pCi/L 09/23/16 16:42 15262-20-1 C:77% T:80% Total Radium Total Radium $0.595 \pm 0.481 \quad (0.904)$ pCi/L 10/04/16 15:09 7440-14-4 Calculation Collected: 09/01/16 12:07 Sample: HGWC-14 Lab ID: 30195129008 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 $0.402 \pm 0.188 \quad (0.270)$ pCi/L 09/28/16 09:34 13982-63-3 C:95% T:NA

Sample: HGWC-15 PWS:	Lab ID: 3019512 Site ID:	29009	Collected: 09/01/16 12:58 Sample Type:	Received:	09/06/16 08:50	Matrix: Water	
Parameters	Method	Act	± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.186 ± C:85%	± 0.122 (0.180) T:NA	pCi/L	09/28/16 09:08	13982-63-3	
Radium-228	EPA 9320		± 0.413 (0.802) • T:82%	pCi/L	09/23/16 16:42	2 15262-20-1	
Total Radium	Total Radium Calculation	0.766 ±	± 0.535 (0.982)	pCi/L	10/04/16 15:09	7440-14-4	

1.24 ± 0.512 (0.806)

1.64 ± 0.700 (1.08)

C:71% T:82%





ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

Pace Project No.: 30195129	9					
Sample: HGWC-16 PWS:	Lab ID: 3019512 Site ID:	9010 Collected: 09/01/16 12:50 Sample Type:	Received:	09/06/16 08:50	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.172 ± 0.114 (0.172)	pCi/L	09/28/16 09:08	13982-63-3	
Radium-228	EPA 9320	C:94% T:NA 1.06 ± 0.460 (0.715) C:72% T:76%	pCi/L	09/23/16 16:43	15262-20-1	
Total Radium	Total Radium Calculation	1.23 ± 0.574 (0.887)	pCi/L	10/04/16 15:21	7440-14-4	
Sample: HGWC-17	Lab ID: 3019512		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	0.0922 ± 0.0996 (0.194) C:87% T:NA	pCi/L	09/28/16 09:08	13982-63-3	
Radium-228	EPA 9320	0.765 ± 0.399 (0.697) C:75% T:86%	pCi/L	09/23/16 16:43	15262-20-1	
Total Radium	Total Radium Calculation	0.857 ± 0.499 (0.891)	pCi/L	10/04/16 15:21	7440-14-4	
Sample: HGWC-18 PWS:	Lab ID: 3019512 Site ID:	9012 Collected: 09/01/16 14:32 Sample Type:	Received:	09/06/16 08:50	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.594 ± 0.231 (0.223)	pCi/L	09/28/16 09:08	13982-63-3	
Radium-228	EPA 9320	C:84% T:NA 0.914 ± 0.526 (0.967) C:78% T:75%	pCi/L	09/23/16 12:42	15262-20-1	
Total Radium	Total Radium Calculation	1.51 ± 0.757 (1.19)	pCi/L	10/04/16 15:21	7440-14-4	
Sample: FB-1 PWS:	Lab ID: 3019512 Site ID:	9013 Collected: 09/01/16 09:21 Sample Type:	Received:	09/06/16 08:50	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0634 ± 0.102 (0.225)	pCi/L	09/28/16 09:08	13982-63-3	
Radium-228	EPA 9320	C:77% T:NA 0.976 ± 0.427 (0.668)	pCi/L	09/23/16 16:43	15262-20-1	
Total Radium	Total Radium Calculation	C:73% T:79% 1.04 ± 0.529 (0.893)	pCi/L	10/04/16 15:21	7440-14-4	
Sample: FB-2 PWS:	Lab ID: 3019512 Site ID:	9014 Collected: 09/01/16 12:18 Sample Type:	Received:	09/06/16 08:50	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.00973 ± 0.0706 (0.193)	pCi/L	09/28/16 09:08	13982-63-3	
Radium-228	EPA 9320	C:78% T:NA 0.364 ± 0.361 (0.743) C:76% T:84%	pCi/L	09/23/16 16:44	15262-20-1	



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

Sample: FB-2 Lab ID: 30195129014 Collected: 09/01/16 12:18 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

 Total Radium
 Total Radium
 0.374 ± 0.432 (0.936)
 pCi/L
 10/04/16 15:21 7440-14-4

Calculation

 Sample: FERB-1
 Lab ID: 30195129015
 Collected: 09/01/16 14:00
 Received: 09/06/16 08:50
 Matrix: Water

PWS: Site ID: Sample Type:

Method **Parameters** Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual EPA 9315 $0.0600 \pm 0.0849 \quad (0.177)$ Radium-226 09/28/16 11:34 13982-63-3 pCi/L C:76% T:NA Radium-228 EPA 9320 $0.0879 \pm 0.406 \quad (0.920)$ pCi/L 09/23/16 16:44 15262-20-1 C:71% T:81%

Total Radium Total Radium 0.148 ± 0.491 (1.10) pCi/L 10/04/16 15:21 7440-14-4 Calculation

Sample: FERB-2 Lab ID: 30195129016 Collected: 09/01/16 15:28 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 EPA 9315 Radium-226 -0.0571 ± 0.0460 (0.203) 09/28/16 11:34 13982-63-3 pCi/L C:84% T:NA EPA 9320 1.31 ± 0.583 (0.970) Radium-228 pCi/L 09/23/16 16:45 15262-20-1 C:73% T:78% Total Radium Total Radium 1.31 ± 0.629 (1.17) pCi/L 10/04/16 15:21 7440-14-4 Calculation

 Sample: DUP-1
 Lab ID: 30195129017
 Collected: 09/01/16 00:01
 Received: 09/06/16 08:50
 Matrix: Water

 PWS:
 Site ID:
 Sample Type:

Parameters Method Act ± Unc (MDC) Carr Trac Units Analyzed CAS No. Qual Radium-226 EPA 9315 $0.235 \pm 0.155 \quad (0.243)$ pCi/L 09/28/16 11:34 13982-63-3 C:70% T:NA $0.924 \pm 0.499 \quad (0.905)$ FPA 9320 Radium-228 pCi/L 09/23/16 22:37 15262-20-1 C:82% T:78% Total Radium Total Radium 1.16 ± 0.654 (1.15) pCi/L 10/04/16 15:21 7440-14-4

Sample: DUP-2 Lab ID: 30195129018 Collected: 09/01/16 00:01 Received: 09/06/16 08:50 Matrix: Water

PWS: Site ID: Sample Type:

Calculation

Act ± Unc (MDC) Carr Trac **Parameters** Method Units Analyzed CAS No. Qual EPA 9315 0.106 ± 0.124 (0.255) Radium-226 pCi/L 09/28/16 11:34 13982-63-3 C:78% T:NA 0.581 ± 0.480 (0.964) FPA 9320 Radium-228 pCi/L 09/23/16 22:37 15262-20-1 C:69% T:87% Total Radium Total Radium 0.687 ± 0.604 (1.22) pCi/L 10/04/16 15:21 7440-14-4 Calculation



QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

QC Batch: 232984 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30195129001, 30195129002, 30195129003, 30195129004

METHOD BLANK: 1141814 Matrix: Water

Associated Lab Samples: 30195129001, 30195129002, 30195129003, 30195129004

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.756 ± 0.402 (0.705) C:77% T:82%
 pCi/L
 09/23/16 12:40



QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

QC Batch: 232979 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30195129005, 30195129006, 30195129007, 30195129008, 30195129009, 30195129010, 30195129011, 30195129012, 30195129013, 30195129014, 30195129015, 30195129016, 30195129017, 30195129018

METHOD BLANK: 1141799 Matrix: Water

Associated Lab Samples: 30195129005, 30195129006, 30195129007, 30195129008, 30195129009, 30195129010, 30195129011,

30195129012, 30195129013, 30195129014, 30195129015, 30195129016, 30195129017, 30195129018

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.0354 ± 0.0753 (0.177) C:94% T:NA
 pCi/L
 09/28/16 09:34



QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

QC Batch: 232985 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30195129005, 30195129006, 30195129007, 30195129008, 30195129009, 30195129010, 30195129011,

30195129012, 30195129013, 30195129014, 30195129015, 30195129016, 30195129017, 30195129018

METHOD BLANK: 1141817 Matrix: Water

Associated Lab Samples: 30195129005, 30195129006, 30195129007, 30195129008, 30195129009, 30195129010, 30195129011,

30195129012, 30195129013, 30195129014, 30195129015, 30195129016, 30195129017, 30195129018

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.293 ± 0.388 (0.829) C:78% T:83%
 pCi/L
 09/23/16 12:42



QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

QC Batch: 232978 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

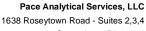
Associated Lab Samples: 30195129001, 30195129002, 30195129003, 30195129004

METHOD BLANK: 1141797 Matrix: Water

Associated Lab Samples: 30195129001, 30195129002, 30195129003, 30195129004

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.0236 ± 0.0605 (0.149) C:91% T:NA
 pCi/L
 09/28/16 09:31





QUALIFIERS

Project: Plant Hammond AP 1&2 CCR

Pace Project No.: 30195129

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

Date: 10/14/2016 08:55 AM

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#:30195129

CHAIN OF CUSTODY RECORD

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

30195129

CLIENT NAME:			ANALYSIS REQUESTE	EQUESTED	1	CONTAINED TYPE	
Georgia Power		CONTAINER TYPE: P	H		14	P - PI ASTIC	TRESERVATION 1 HOLVEST
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:	NUMBER:	PRESERVATION: 3	H		(n	t	2 - H,SO₁.≤6°C
241 Kaiph McGill Blvd SE B10185 Atlanta GA 30308		# of				G - CLEAR GLASS	3 - HNO ₃
404-506-7239		U			-	V - VOA VIAL	4 - NaOH, ≤6°C
REPORT TO:	CC: Maria Padilla	0 2			- 0	0 - OTHER	5 - NaUH/ZNAC, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C
REQUESTED COMPLETION DATE:	PO #:	Z -			2		7 - ≤6°C not frozen
PROJECT NAME/STATE:	laburch@southernco.com	۷ -	(၁		ָים י	*MATRIX	*MATRIX CODES:
Plant Hammond AP 1&2	ond AP 1&2				2 0	DW - DRINKING WATER	S- SOIL
PROJECT#:	CCR	л ц (1,8 III	TDS & SM & S28		п қ	WW - WASTEWATER GW - GROUNDWATER	SL - SLUDGE SD - SOLID
⊢		. d	.8 0.8 80				
Collection Collection MATRIX O F COLLECTION OF COLLECTION	R SAMPLE IDENTIFICATION	qA slst	208 A° 200,∃ 200£ A° 200 S muib 20 S Muib				L - LIQUID P - PRODUCT
а.	m	₽W	CI, (EF		→	REMARKS/ADDITIC	REMARKS/ADDITIONAL INFORMATION
89101116 89:20 GW X	x Hawc-7	4	2 1				8
096111608350 GW >	X HGWC-8	M)				500
09/01/16 09:32 GW	X Hawe-9	M					\$ 0.07 \$ 0.07
09/01/16 10:18 GW >	x 421/2-10	~					() to ()
09/01/16 10:48 aw	Kawc-11	M					- (v < c) < c) < c
09101116 11=54 GW	X HGWC-12	M					7500
09/61/16 11:20 GW X	X Hawc-13	M					
09/01/16 12:07 am	X Hqwc-14	2	-				000
09/61/16 12:58 GW X	X Hauc- 15	M					0000
09/61/16 12=50 GW X	X Hawa-12	8	~				3
०१/०१/१७ १५:45 ५७ x	X Hauc-17	n					
09/61/16/14:32 aw		7	1 2				
SAMPLED BY AND TITLE FRUM M.R.;		RELINQUISHED BY:	X	DATE/TIME	1240	FOR LAB USE ON	USE ONLY
RECEIVED BY OUR	DATE/TIME: NOSK	RELINQUISHED BY		DATE/TIME	1	(AD #)	
RECEIVED BY LAB:	DATE/TIME: *	SAMPLE SHIPPED VIA:	IRDC			Entered Into Livis: Tracking #:	
pH-checked: Ice: Yes No NA Yes No NA	Temperature: Min Mass	dy Se	#	Cooler ID:	סו חבות		
		index. Dioken	INOT Present				

CHAIN OF CUSTODY RECORD

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

PAGE: 2 OF 2

100000000000000000000000000000000000000						
CLIENT NAME:		Ì	ANALYSIS REQUESTED		CONTAINED TYDE	INCITAL COTOTO
Georgia Power	i	۵		Y	CONTAINER LIFE	PRESERVALION
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER		PRESERVATION: 3 7	en	ď	A - AMBER GLASS	7-8-C
241 Kalph McGill Blvd SE B10185		# of			G - CLEAR GLASS	3 - HNO ₃
Auanta, GA 30308 404-506-7239				-	V - VOA VIAL	4 - NaOH, ≤6°C
	CC: Maria Padilla) o			S - STERILE O - OTHER	. 5 - NaOH/ZnAc, ≤6°C 6 - NacScO. <6°C
Joju Abraham	Heath McCorkle	z		ı		7 - 76°C 504 from 7
REQUESTED COMPLETION DATE:	PO#.	—		2		100 110
PROJECT NAME/STATE:	laburch@southernco.com			ב	*MATRI	*MATRIX CODES:
Plant Hammond AP 1&2	id AP 1&2	0 1 97		M	DW - DRINKING WATER	IOS -S
PROJECT #:	CCR	(07 (07 (1 &	7887	m (WW - WASTEWATER	SL - SLUDGE
	- }), III .c		Y	GW - GROUNDWATER	SD - SOLID
ပ ဝ		020S			ST - STORM WATER	A - AIR L - LIQUID
	SAMPLE IDENTIFICATION	Р. , Р. АЧ			W - WATER	P - PRODUCT
n.		(E (CI (W		>	REMARKS/ADDITION	REMARKS/ADDITIONAL INFORMATION
04/01/16 09:21 W K	TB-1	2				5.0
09/01/16 12=18 W X	FB-2		-) E
x / 00:41 11/10/60	FER3-1	-				1.0
X ~ 82:51 91/10/60		- -				3 \ 3
09/01/16 - GW X	DUP-1	- -				35
09/01/16 - GW X	D42-2	N				10x
		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1				2

MAN DATE THE BILLY MINE DATE TIME OF 1/16	DATE/TIME: OPIGITIC 16:00	RELINQUISHED BY:	Alli	DATE/TIME 124C)	FOR LAB	FOR LAB USE ONLY
RECEIVED BY:	DATE/TIME: 10/0/89	RELINQUISHED BY:			Entered into l'IMS:	
RECEIVED BY LAB:	DATE/TIME: 1	SAMPLE SHIPPED VIA	aziariou		Tracking #:	
pH_checked: Ice: Yes No NA Yes No NA	Temperature:	y Seal:	# of Coolers	Cooler ID:		
		Tibyoto				

Sample Condition Upon Rec	eipt l	Pitts.	bur	gh		
Pace Analytical Client Name:	<u> </u>	F	<u>ac</u>	<u>e, </u>	GA	Project#
Courier: 7 Fed Ex UPS USPS Clie Tracking #: 6812 5098 884	ent 🗆	Comn	nercia	al 🗆	Pace Other	
Custody Seal on Cooler/Box Present:	Ø	no	Sea	als inta	ct: 🗆 yes	□ no
Thermometer Used \\/\frac{\frac{1}{4}}{4}	-		: W	et B	lue (None)	
Cooler Temperature Observed Temp		. C	Cor	rrectio	n Factor:	°C Final Temp: °C
Temp should be above freezing to 6°C						
						Date and Initials of person examining contents:
Comments:	Yes	No	N/A	4		
Chain of Custody Present:	X	<u> </u>		1.		
Chain of Custody Filled Out:	X	<u> </u>		2.		
Chain of Custody Relinquished:	X		<u> </u>	3.		
Sampler Name & Signature on COC:		IX.		4.		
Sample Labels match COC:	X	<u> </u>		5.		
-Includes date/time/ID/Analysis Matrix: 1	<u>/T</u>					
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.	1110	
All containers needing preservation are found to be in compliance with EPA recommendation.	X				PHLZ	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial compl	when 191	Date/time of preservation
exceptions. VOA, comonn, 100, cao, i henolico				\vdash	of added	procervation
· · · · · · · · · · · · · · · · · · ·			V		vative	
Headspace in VOA Vials (>6mm):			Δ_	14.		
Trip Blank Present:		X		15.		
Trip Blank Custody Seals Present			Χ_	Unitial	when A and A	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial v		Date: 9-6-16
Client Notification/ Resolution:						
Person Contacted:			Date/1	Γime:		Contacted B <u>y:</u>
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.

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date:

Sample Matrix Spike Control Assessment

Spike I.D.:

Sample MS 1.D. Sample MSD 1.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):

WRR Test: Analyst: Date: Worklist: Matrix:

9/23/2016 31360 DW

Method Blank Assessment			_
	MB Sample ID	1141797	
•	MB concentration:	0.024	_
	M/B Counting Uncertainty:	0.060	_
	MB MDC:	0.149	_
MB Num	MB Numerical Performance Indicator:	0.77	_
MBS	MB Status vs Numerical Indicator:	ΝΆ	
	MB Status vs. MDC;	Pass	_

MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F):

Spike uncertainty (calculated):

Sample Result

MSD Target Conc. (pCi/L, g, F):

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:

Sample Result Counting Uncertainty (pCirl., g, F): Sample Matrix Spike Result:

MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

MS Status vs Numerical Indicator. MSD Percent Recovery

Laboratory Control Sample Assessment	LCSD (Y or N)?	z
	LCS31360	LCSD31360
Count Date:	9/28/2016	
Spike 1.D.:	16-026	•
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.529	
Target Conc. (pCi/L, g, F):	8.452	
Uncertainty (Calculated):	0.398	
Result (pOi/L, g, F):	7.327	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.605	
Numerical Performance Indicator:	-3.05	
Percent Recovery:	86.68%	
Status vs Numerical Indicator:	Α'n	
Status vs Recovery:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	Sample I.D. Sample MSI I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Duplicate Result: Counting Uncertainty (pCiXI., 9, F): Duplicate Result Counting Uncertainty (pCiXI., 9, F): Duplicate Numerical Performance Indicator: MS/ MSD Duplicate Result MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:	;
·.·	Enter Duplicate sample IDs if other than LCS/LCSD in the space below. 30195127001 30195127001 Stills are helow the page to	
	Sample I.D.: 30195127001 Enter Duplicate Cicil., 9, F): 1.317 sample I.Ds if Cicil., 9, F): 1.317 other (han plant) (Cicil., 9, F): 1.390 space below. (Cicil., 9, F): 0.315 space below. (Cicil., 9, F): 0.315 space below. (Cicil., 9, F): 0.329 30195127001 Delow MDC7 See Below ##. 30195127001DUI Include RPD: 5.40% 30195127001DUI All Normalies Pass 30135127001DUI All Normalies Pass 30135127001DUI All Normalies Pass 30135127001DUI	
Duplicate Sample Assessment	Sample 1.D.: 30195127001 Sample Result (polit., g. F): 30195127001DUP Sample Result (polit., g. F): 1.317 Sample Duplicate Result (polit., g. F): 0.301 Sample Duplicate Result (polit., g. F): 0.301 Sample Duplicate Result (polit., g. F): 0.316 Are sample and/or duplicate results below MDC? See Below ## Duplicate Numerical Performance Indicator: 0.339 Duplicate Numerical Indicator: 0.339 Duplicate Status vs Numerical Indicator: 0.339 Duplicate Status vs Numerical Indicator: 0.339 Duplicate Status vs RPD: Pass ## Evaluation of duplicate precision is not applicable if either the sample or duplicate precision is not applicate the precision is not applicate the preci	

Comments:

Duplicate Sample Assessment

TAR DW QC Printed: 10/4/2016 4:08 PM

1 of 1

Ra-226 WRR 9/23/2016 31361 DW Test Date: Worklist: Matrix: Analyst

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Collection Date: Sample I.D. Sample Matrix Spike Control Assessment

Sample MS I.D. MS/MSD Decay Corrected Spike Concentration (pCi/mL):

Sample MSD I.D.

Spike I.D.:

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

LCSD31361

SD (Y or N)? LCS31361 9/28/2016

Count Date:

Spike I.D. Volume Used (mL) Target Conc. (pCi/L, g, F)

Spike Concentration (pCi/mL): Aliquot Volume (L, g, F):

0.035 0.075 0.177 0.92 N/A Pass

M/B Counting Uncertainty: MB MDC:

MB Numerical Performance Indicator:

MB Status vs Numerical Indicator:

MB Status vs. MDC

Laboratory Control Sample Assessment

MB Sample ID MB concentration:

Method Blank Assessment

16-026

44.677 0.10 0.500 8.927 0.420

Uncertainty (Calculated):

Result (pCi/L, g, F):

LCS/LCSD Counting Uncertainty (pCi/L, g, F): Numerical Performance Indicator: Status vs Numerical Indicator: Status vs Recovery:

Percent Recovery:

Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result MS Numerical Performance Indicator

MS Percent Recovery: MSD Numerical Performance Indicator: MSD Percent Recovery

MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery:

Sample I.D. Sample MS I.D. Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample Matrix Spike Result:

CS/LCSD in the

other than

30195129012DUP 30195129012

Sample i.D.:

Duplicate Sample Assessment

space below.

0.594 0.214 0.519 0.243

Duplicate Sample I.D.
Sample Result (pCi/L. g, F):
Sample Result Counting Uncertainty (pCi/L. g, F):
Sample Duplicate Result (pCi/L. g, F):
Sample Duplicate Result Counting Uncertainty (pCi/L. g, F):
Are sample and/or duplicate results below MDC?

See Below 排

0.453 13.44%

Duplicate RPD:

Duplicate Status vs Numerical Indicator:

Duplicate Numerical Performance Indicator:

N/A Pass

Enter Duplicate sample IDs if Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

Sample MSD I.D.

MS/ MSD Dupficate RPD: Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator:

MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD

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

Comments:

Duplicate Status vs RPD

1 of 1

<u>Analyst Must Manually Enter All Fields Highlighted in Yellow.</u>

JLW 9/15/2016 31365 DW Worklist: Matrix: Test: Analyst: Date:

Sample Matrix Spike Control Assessment

Method Blank Assessment

Sample MS 1.D. Sample MSD I.D. Spike LD.:

Sample Coffection Date:

MS/MSD Decay Corrected Spike Concentration (pCt/mL):

MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F):

Spike uncertainty (calculated):

Sample Result:

MS Aliquot (L, g, F):

Spike Volume Used in MSD (mL) Spike Volume Used in MS (mL)

MB concentration: MB Sample ID

MB Numerical Performance Indicator: MB Status vs Numerical Indicator: M/B Counting Uncertainty: MB MDC

0.379 0.705 3.91 N/A See Comment* MB Status vs. MDC;

N LCSD31365 5D (Y or N)7 LCS31365 9/23/2016 16-025 25.599 0.20 0.809 6.329 6.329 0.849 2.33 118.07% N/A Pass Spike Concentration (pCi/mL): Aliquot Volume (L, g, F): Farget Conc. (pCi/L, g, F): Uncertainty (Calculated): Result (pCi/L, g, F): · LCS/LCSD Counting Uncertainty (pCI/L, g, F): Numerical Performance Indicator: Percent Recovery: Status vs Numerical Indicator; Count Date: Volume Used (mL) Spike 1.D. Laboratory Control Sample Assessment

Matrix Spike Result Counting Uncertainty (DCIIL, g. F): Semple Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (DCIIL, g. F):

MSD Numerical Performance Indicator:

MS Percent Recovery. MSD Percent Recovery.

MS Numerical Performance Indicator.

MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:

MS Status vs Recovery.

MSD Status vs Recover

Sample Matrix Spike Result:

Sample Result Counting Uncertainty (pCifL, g, F);

Status vs Recovery. Duplicate Sample Assessment

Matrix Spike/Matrix Spike Duplicate Sample Assessment sample IDs if other than LCS/LCSD in the space below. Enter Duplicate 0.691 0.691 0.692 See Below## 1.0.699 7.06% 30195127001 30195127001DUP Sample I.D.:
Duplicate Sample I.D.
Sample Result (pGl/L, g, F):
Sample Result Counting Uncertainty (pGl/L, g, F):
Sample Duplicate Result (pGl/L, g, F):
Sample Duplicate Result (pGl/L, g, F):
Are sample and/or duplicate results below MDC?

Sample I.D. Sample MS I.D.

Sample MSD I.D. Sample Matrix Spike Result: Sample Matrix Spike Duplicate Result

Matrix Spike Result Counting Uncertainty (pCifl., g, F): Matrix Spike Duplicate Result Counting Uncertainty (pCill., g, F):

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are belipy the MDC. Pass Pass Duplicate Numerical Performance Indicator; Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD:

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:

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

Ra-228 NELAC DW2 Printed: 10/4/2016 4:12 PM

105

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Face AnalyticaF

9/15/2016 Ra-228 JLW Analyst: Date:

31366 DW Worklist: Matrix:

Method Blank Assessment

Sample MS I.D. Sample MSD I.D.

Spike I.D.

Sample Collection Date:

Sample Matrix Spike Control Assessment

MB Numerical Performance Indicator: MB Status vs Numerical Indicator: MB Sample ID MB concentration: M/B Counting Uncertainty: MB MDC

MS/MSD Decay Corrected Spike Concentration (pCi/mL); 0.293 0.385 0.829 1.49 N/A Pass

LCSD31366 LCSD (Y or N)? LCS31366

MB Status vs. MDC

Laboratory Control Sample Assessment

MS Target Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result.

Sample Result:

MS Aliquot (L, g, F):

Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL):

Sample Matrix Spike Duplicate Result; Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Matrix Spike Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator:

9/23/2016 16-025 25.589 0.20 0.802 6.387 0.460 6.021

Aliquot Volume (L, g, F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated):

Spike Concentration (pCi/mL.): Volume Used (mL):

Count Date Spike I.D. Result (pCl/L, g, F): LCS/LCSD Counting Uncertainty (pCl/L, g, F):

Percent Recovery: Status vs Numerical Indicator:

Status vs Recovery

Duplicate Sample Assessmen

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 MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F):

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

0.500 0.752 0.514 See Below ##

Sample Result (pCift., g, F):
Sample Result Counting Uncertainty (pCift., g, F):
Sample Duplicate Result (pCift., g, F):
Sample Duplicate Result Counting Uncertainty (pCift., g, F):
Are sample and/or duplicate results below MDC?

0.443 19.46%

Duplicate RPD:

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD:

Duplicate Numerical Performance Indicator;

N/A Pass

Duplicate Sample I.D. 30195129012DUP

30195129012

Sample I.D.:

Sample I.D.

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:

Comments:

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

(724)850-5600





June 14, 2017

Maria Padilla **GA Power** 2480 Maner Rd Atlanta, GA 30339

RE: Project: AAE0736 Plant Hammond

Pace Project No.: 30219762

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on May 24, 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

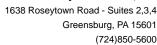
Sugnely Sellins

jacquelyn.collins@pacelabs.com

(724)850-5612 **Project Manager**

Enclosures







CERTIFICATIONS

Project: AAE0736 Plant Hammond

Pace Project No.: 30219762

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

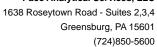
South Dakota Certification

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





SAMPLE SUMMARY

Project: AAE0736 Plant Hammond

Pace Project No.: 30219762

Lab ID	Sample ID	Matrix	Date Collected	Date Received	
30219762001	HGWA-1	Water	05/22/17 13:15	05/24/17 10:10	
30219762002	HGWA-2	Water	05/22/17 14:20	05/24/17 10:10	
30219762003	HGWA-3	Water	05/22/17 15:10	05/24/17 10:10	

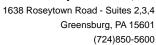


SAMPLE ANALYTE COUNT

Project: AAE0736 Plant Hammond

Pace Project No.: 30219762

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30219762001	HGWA-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30219762002	HGWA-2	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30219762003	HGWA-3	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1



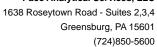


ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0736 Plant Hammond

Pace Project No.: 30219762

Sample: HGWA-1	Lab ID: 302197620	001 Collected: 05/22/17 13:15	Received:	05/24/17 10:10	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.0631 ± 0.104 (0.231) C:87% T:NA	pCi/L	06/05/17 08:27	13982-63-3	
Radium-228	EPA 9320	0.491 ± 0.391 (0.772) C:71% T:81%	pCi/L	06/09/17 15:33	3 15262-20-1	
Total Radium		0.554 ± 0.495 (1.00)	pCi/L	06/13/17 11:19	7440-14-4	
Sample: HGWA-2	Lab ID: 302197620	002 Collected: 05/22/17 14:20	Received:	05/24/17 10:10	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.0750 ± 0.111 (0.239) C:81% T:NA	pCi/L	06/05/17 08:27	13982-63-3	
Radium-228	EPA 9320	0.563 ± 0.384 (0.731) C:72% T:83%	pCi/L	06/09/17 15:33	3 15262-20-1	
Total Radium		0.638 ± 0.495 (0.970)	pCi/L	06/13/17 11:19	7440-14-4	
Sample: HGWA-3	Lab ID: 302197620		Received:	05/24/17 10:10	Matrix: Water	
PWS:	Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		0.181 ± 0.150 (0.269) C:82% T:NA	pCi/L	06/05/17 08:28	13982-63-3	
Radium-228	EPA 9320	0.563 ± 0.383 (0.727) C:73% T:79%	pCi/L	06/09/17 15:33	3 15262-20-1	
Total Radium		0.744 ± 0.533 (0.996)	pCi/L	06/13/17 11:19	7440-14-4	





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0736 Plant Hammond

Pace Project No.: 30219762

QC Batch: 259988 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

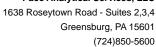
Associated Lab Samples: 30219762001, 30219762002, 30219762003

METHOD BLANK: 1280841 Matrix: Water

Associated Lab Samples: 30219762001, 30219762002, 30219762003

Parameter Act \pm Unc (MDC) Carr Trac Units Analyzed Qualifiers Radium-226 -0.00323 \pm 0.0673 (0.196) C:92% T:NA pCi/L 06/05/17 08:26

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





QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0736 Plant Hammond

Pace Project No.: 30219762

QC Batch: 260238 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 30219762001, 30219762002, 30219762003

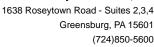
METHOD BLANK: 1281814 Matrix: Water

Associated Lab Samples: 30219762001, 30219762002, 30219762003

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 -0.0265 ± 0.372 (0.866) C:69% T:91% pCi/L 06/09/17 15:32

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





QUALIFIERS

Project: AAE0736 Plant Hammond

Pace Project No.: 30219762

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

Date: 06/14/2017 02:00 PM

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.

Pace Analytical

LAB USE ONLY 003 003 00 Results Requested By: 5/16/2017 WO#:30219762 Requested Analysis Radium 226, 228, Total Owner Received Date: Preserved Containers ЕОИН Matrix 89 8 ω AAE0736-03 AAE0736-01 AAE0736-02 Plant Hammond Phone (724) 850-5600 1638 Roseytown Road Greensburg, PA 15601 Collect Date/Time Lab ID Pace - Pittsburgh Subcontract To: 5/22/2017 15:10 5/22/2017 13:15 5/22/2017 14:20 Stes. 2,3,4 Workorder Name: Sample Type Φ Ģ G Peachtree Corners, GA 30092 Workorder: AAE0736 110 Technology Parkway Pace Analytical Atlanta Phone (770)-734-4200 Betsy McDaniel Item Sample ID HGWA-2 HGWA-3 HGWA-1

	A11A		W	14 (2)
Cooler Temperature on Receipt), #/2	Custody Seal Y of N)	Kecelved on Ice Y only	Sample Intact Out IN
***In order to maintain client confidentiality, location/nam	nfidentiality, lo	cation/name of the sampling site	ime of the sampling site, sampler's name and signature may not be provided on this COC	provided on this COC
This chain of custody is consider	ed complete as	This chain of custody is considered complete as is since this information is available in the owner laboratc	able in the owner laboratory.	

lo lo EQuIS deliverable required (Profile 7564).

Comments

Date/Time

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Pate

Received By

Date/Time

Transfers Released By

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Page 1 of 1

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CHAIN OF CUSTODY RECORD

Pace Analytical "

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

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PAGE

5 - NaOH/ZnAc, s6°C 7 - ≤6°C not frozen 6 - Na,S,O, 56°C REMARKS/ADDITIONAL INFORMATION 2- H₂SO,, ≤6°C 4 - N8OH, S6°C PRESERVATION SL - SLUDGE SD- SOLID P- PRODUCT 1 - HQ, ≤6°C C- LIQUID 3- HNO. A - AIR "MATRIX CODES: CORTAB USE ONE ģ DRINKING WATER SW - SURFACE WATER GW - GROUNDWATER ST - STORM WATER A - AMBER GLASS G - CLEAR GLASS NW - WASTEWATER CONTAINER TYPE S.STERILE O.OTHER V - VOA VIAL P-PLASTIC W - WATER STEEL STATE *95 <u>§</u> 23**20**00 DATE/TIME: DATE/13 ANALYSIS REQUESTED (eM-845 8315/9520) Redium 226 8 226 ٥. N N CI, F, SD, & TDS (EPA 300.0 & EM 2540C) FERSUSTED BY Vigility And 257 Again William V CONTADIER TYPE: #0# $z u \propto \omega$ 4 4 laburch@southemco.com SAMPLE IDENTIFICATION Heath McCorkle HGWA-2 HOWAS Matte Padilla HGWA-1 16148 DATE/TIME: 5/22/2017 - 1530 DATE/TIME: Plant Hammond - AP 1&2 **LIENT ADDRESS/PHONE NUMBER/FAX NUMBER** 8 8 g × × **ωα < α** × しくなりなが OOM MATRIX Lauren Petty REQUESTED COMPLETION DATE: <u>i</u> 241 Raiph McGill Blvd SE B10185 ₹ s ≥ SAMPLED BY AND TITLE PROJECT NAME/STATE: Collection 13:15 15:10 2 Markevious Thomes RECEIVED BY: Manta, GA 33308 CLIENT NAME seorgia Power 404-506-7239 EPORT TO: PROJECT #: Collection DATE 05/22/17 05/22/17 0522/17

Hammond Groundwater Sampling Forms.xisx

age 10 of 13

Pace Analytical	Client Name:			f) die	GA	Pr	oject#	2 1 9 7	
							_			
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racking #: TOY sustody Seal on Cooler		. N		c	eals intact:	☐ yes	□ no	1		
hermometer Used	N/A		e of lo			None))	,		
ooler Temperature		1/A	°C	∍, ^	orrection F	Factor: A	J/A - d	Final Temp	N/A	° (
ooier Temperature emp should be above freezi	<u></u>	1417	<u> </u>	U	OHECTOH	actor <u>. • •</u>	-17]	T mar remp	<u> </u>	_
···•								Date and Initials contents:	of person exam	ninin
omments:		Yes	s No	IN	I/A			contents: VI	10 212	41
nain of Custody Present:		X			1.					
ain of Custody Filled Ou		X			2.					
ain of Custody Relinquis	shed:	X			3.					
mpler Name & Signature	e on COC:	X	1		4.					
mple Labels match COC):	X			5.		,			
-Includes date/time/ID	Matrix:	W	7			-				
nples Arrived within Hol	d Time:	×]		6.					
ort Hold Time Analysis	(<72hr remaining):		×		7.					
h Turn Around Time F	Requested:		×		8.					
icient Volume:		X			9,					
rect Containers Used:	,	X			10.					
Pace Containers Used:		X								
tainers Intact:		X			11.					
ophosphate field filtered			j	X	ž 12.					
anic Samples checked	d for dechlorination:			X	13.			V		
red volume received for	Dissolved tests			Х	14.	-				
ntainers have been checke	ed for preservation.	X			<u></u>	12				
ntainers needing preservati		X			^{15.} pH	\ _				
liance with EPA recommen	dation.				Initial when	5/24	// Date/ti	me of		
otions: VOA, coliform,	ГОС, О&G, Phenolics				completed	RTB "	presen			
					Lot # of add				An,	
space in VOA Vials (>6	mm):			Х	16.					-
lank Present:				<u>×</u>	17.					
llank Custody Seals Pre	sent			<u>/</u> X	1					
queous Samples Scre			X	-	Initial when	2+12	Date:	5/24/17		
Martin all of Branch C				_	completed:	RTB	Date.	- 1- (1) (
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Person Contacted: ments/ Resolution:			Di	ato/ I	#17L.			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
ments/ 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.

RTB

Face Analytical*

Quality Control Sample Performance Assessment

6/6/2017 35947 DW 7,7 Test: Date. Worklist: Matrix: Analyst:

-0.026 0.372 0.866 -0.14

M/B Counting Uncertainty: MB MDC:

MB Numerical Performance Indicator; MB Status vs Numerical Indicator: MB Status vs. MDC:

MB Sample ID MB concentration:

Method Blank Assessment

Pass Ϋ́

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.; MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): MS Aliquot (L, g, F): MS Target Conc.(pCi/L, g, F): MSD Aliquot (L. g. F): MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated): Sample Result: Sample Result Counting Uncertainty (pCirl., g, F): Sample Matrix Spike Result. Sample Collection Date: Spike Volume Used in MSD (mL) Sample Matrix Spike Control Assessment LCSD35947 6/9/2017 17-005 24,332

SD (Y or N)? LCS35947 6/9/2017 17-005 24.332 0.20

Count Date: Spike I.D.:

Laboratory Control Sample Assessment

Spike Concentration (pCI/mL):

Volume Used (mL): Aliquot Volume (L. g. F): Target Conc. (pCi/L, g, F): Uncertainty (Calculated):

0.806 6.039 0.435 7.214

Result (pCl/L, g, F): LCS/LCSD Counting Uncertainty (pCl/L, g, F):

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
MSD Status vs Recov	Pass
MS Status vs Recov	V/Α
MSD Status vs Numerical Indica	16.34%
MS Status vs Numerical Indica	2.29
MSD Percent Recov	0.721
MS Percent Recov	7.008
MSD Numerical Performance Indica	0.434
MS Numerical Performance Indica	6.023
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g,	0.808
Sample Matrix Spike Duplicate Res	0.20
Matrix Spike Result Counting Uncertainty (pCi/L, g,	24.332

Sample MS LD. Sample MSD LD. Sample MSD LD. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCifl., g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCifl., g, F): Duplicate Numerical Performance Indicator:	(Based on the Percent Recoveries) MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Programs Systems (PD)
--	---

Sample I.D.

Enter Duplicate sample IDs if other than LCS/LCSD in

CSD35947

CS35947

Sample I.D.:

Duplicate Sample I.D.

19.46% N/A

Percent Recovery:

Numerical Performance Indicator:

Status vs Numerical Indicator: Status vs Recovery:

Duplicate Sample Assessment

he space below

Sample Result (pCif., 9, F):
Sample Result Counting Uncertainty (pCif., 9, F):
Sample Duplicate Result (pCif., 9, F):
Sample Duplicate Result (pCif., 9, F):

Duplicate Numerical Performance Indicator: (Based on the LGS/LCSD Percent Recoveries) Duplicate RPD:

Are sample and/or duplicate results below MDC?

Duplicate Status vs Numerical Indicator:

Duplicate Status vs RPD:

0.766 7.008 0.721 NO 0.384 2.64%

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

N/A Pass

Comments:



Ra-228 NELAC DW2 Printed: 6/14/2017 9:18 AM

..Face Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:

6/1/2017 Ra-226 LAL Date: Analyst: 1414

Sample Collection Date:

Sample Matrix Spike Control Assessment

Sample MSD 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):

Sample MS I.D. Spike I.D.

Worklist: Matrix:	35892 DW
Method Blank Assessment	
MB Sample ID	1280841
MB concentration:	-0.003
M/B Counting Uncertainty:	0.067
MB MDC:	0.196
MB Numerical Performance Indicator:	60.0
MB Status vs Numerical Indicator:	A/A
MB Status vs. MDC:	Pass

aboratory Control Sample Assessment	LCSD (Y or N)?	z
	LCS35892	LCSD35892
Count Date:	6/5/2017	
Spike I.D.:	13-033	
Spike Concentration (pCi/mL):	19.848	
Volume Used (mL.):	0.40	
Aliquot Volume (L, g, F):	0.498	
Target Conc. (pCi/L, g, F):	15.942	
Uncertainty (Calculated):	0.750	
Result (pCi/L, g, F):	14.675	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.939	
Numerical Performance Indicator:	-2.07	
Percent Recovery:	92.05%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Duplicate Sample Assessment			Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.:	Sample I.D.: 30219827005 Enter Duplicate	Enter Duplicate	Sample I.D.
Duplicate Sample I.D. 30219827005DUP	0219827005DUP	sample IDs if	Sample MS I.D.
Sample Result (pCi/L, g, F):	0.120	other than	Sample MSD I.D.
Sample Result Counting Uncertainty (pCl/L, g, F):	0,125	LCS/LCSD in the	Sample Matrix Spike Result:
Sample Duplicate Result (pCi/L, g, F):	0.048	space below.	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.092		Sample Matrix Spike Duplicate Result:
Are sample and/or duplicate results below MDC?	See Below ##	•	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:	0.907	30219827005	Duplicate Numerical Performance Indicator:
Duplicate RPD:	85.84%	30219827005DUP	MS/ MSD Duplicate RPD;
Duplicate Status vs Numerical Indicator:	N/A		MS/ MSD Duplicate Status vs Numerical Indicator:
Duplicate Status vs RPD:	Fail***	•	MS/ MSD Duplicate Status vs RPD:

MSD Status vs Recovery: MSD Status vs Recovery:

MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator:

MS Percent Recovery:

MSD Numerical Performance Indicator:

MS Numerical Performance Indicator

Sample Result:

MSD Aliquot (L, 9, F):

MSD Target Conc. (pCi/L, g, F): Spike uncertainty (cafculated) Sample Matrix Spike Duplicate Result:

Matrix Spike Duplicate Result Counting Uncertainty (pCi/L., g, F):

Matrix Spike Result Counting Uncertainty (pCI/L, g, F):

Sample Matrix Spike Result:

Sample Result Counting Uncertainty (pCi/L, g, F):

Evaluation of duplicate precision is not applicable if either the sample or duplicate result for below the MDC.

Comments:

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

10,1

Printed: 6/14/2017 9:18 AM

TAR DW QC



1		-
1		
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TC	D	B A

ERM	Client:	ERN	U U			Project No.	033	735/	Sampling Date: 4/1//6 Sampler's Name: M. Thomas
	Site/Location:	11110	Mann	rond		11/	- D	111.	210
	Well ID:	00 1	+-/	_ P	ump Type/Model:	,	1200	FUFIC	Sample Collection Time: 15/12 Sample Purge Rate (L/min) ³ : 0./
_	Total Depth (ft)1:			- B	Tubing Material:	120			Sample Furge hate (Elimin).
	epth to Water (ft):				Intake Depth (ft):	11151	1537		QA/QC Collected?
	Well Diameter (in):	The same of	1006)		Stop Purge Time: ge Rate (L/min) ² :	01	11001		QAQC I.D.
	e (gal) = 0.041d ² h:		DG(L)	•	,	11-	LAUT		Laboratory Analyses: See Chair
		of water column (urge Volume (L):	_		□ vacuum jug (S	
Well Condition Purge Method	-	11	-	volvn			np = pump discha	02/02/00	☐ Bailer (only used if necessary)
1317 2016 X 1017 2017 2017 2017	Total Division in the Control of the					1			
Time	Temp.	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume	H ₂ O Depth (ft)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1457	36.31	0.00	60.60	7.48	97.80	.33	.5	19.90	
1502	13.51	532.50	.32	7.09	31.40	.33	1.0	19.85	3 = 6
1507	2223	552.60	.60	7.08	25.50	.09	1.5	19.86	- d
15/2	22.22	557.30	.70	7.08	25.30	.10	20	19.87	
1517	22.55	562.70	.85	7.10	26.60	.09	2.5	19.67	
1512	22.09	562,00	.61	7.07	28.00	.58	3.0	19.57	
1517	22 12	560.30	. 44	7.08	18.90	-09	3.5	19.67	
1532	12 40	56930	.39	7.06	30.00	.32	1.0	19.67	()
1537	1154	570 40	34	706	30,70	,15	4.5	19.87	
1.	pa-3/	1	Carelo	~ s.L.	holicad				
		San	de 10	Market	11	541			
= 7		Jan		THE COLUMN					
3.				6					
				-					3 3
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									B
	-							7.	
			+/- 10%		+/- 10 mV				
Stabilizing	+/-	+/-	(see note	+/-	(see note	+/- 10% or	(see note	(see note	
(2) - Purge rate to be 0.5 (3) - Sampling rate to be	5 lpm or less. e 0,25 lpm or less.	3% ntil after purging and san		0.1 unit pending fines that may	below) ⁸ be resting on the well be	<10 NTUs	below) ⁴	below) ⁶	
(4) - Field parameter ms	easurements to be record	ded every 3 to 5 minutes. ecent consecutive measur on to be 0.3 ft or less. Put	rements.	e lowered as necessary	to keep drawdown belo	w 0.3 ft.			
(7) - DO is not a stabiliz (8) - ORP is not a stabili	ration criterion for the "C ization criterion for the "	on to be 0.3 ft or less. Pur Groundwater sampling "S "Groundwater sampling"	SESD Standard Operation SESD Standard Operation	ng Procedure. ling Procedure.	00000018000000000000000000000000000000				

Date: 2016-07-11 16:28:38

Alexis Peristaltic

Project Information:

Operator Name

Andreas Shoredits

Pump Information:

Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC-HammondTubing Diameter0.17 inSite NameGPC-HammondTubing Length29.0 ft

Latitude 0° 0′ 0″ Longitude 0° 0′ 0″ 463072

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 23.0 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWA-2 140 mL/min Well diameter Total System Volume 0.3394393 L 2.00 in Calculated Sample Rate Well Total Depth 27.9 ft 300 sec Stabilization Drawdown Screen Length 10.0 ft 1.7 in Depth to Water 8.60 ft **Total Volume Pumped** 11.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	· ·	рН	SpCond µS	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	16:02:50	3899.97	22.04	5.74	225.82	0.45	8.69	0.10	18.77
Last 5	16:07:51	4200.97	22.09	5.72	220.95	2.21	8.70	0.10	22.15
Last 5	16:12:51	4500.97	21.99	5.71	211.63	0.57	8.70	0.10	24.88
Last 5	16:17:51	4800.97	21.91	5.70	207.03	1.73	8.70	0.10	25.38
Last 5	16:22:51	5100.97	21.98	5.68	211.48	0.95	8.70	0.10	27.87
Variance 0			-0.09	-0.01	-9.32			0.00	2.73
Variance 1			-0.09	-0.01	-4.61			-0.00	0.50
Variance 2			0.07	-0.02	4.46			-0.00	2.49

Notes

Parameters stable after three consecutive readings; turbidity is less than 5.0 NTU; minimal drawdown; sample time is 16:25

Grab Samples GWCA-2

Groundwater sample

Date: 2016-07-12 09:23:07

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Hammond AP
Site Name Plant Hammond AP

Latitude 0° 0′ 0″

Longitude 0° 0′ 0″

Sonde SN 444107

Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis peristaltic

39 ft

Tubing TypeLDPETubing Diameter.17 inTubing Length48 ft

Pump placement from TOC

Well Information:

Well ID HGWA-3
Well diameter 2 in
Well Total Depth 44.6 ft
Screen Length 10 ft
Depth to Water 8.5 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4242443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.2 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:05:42	300.14	20.03	7.17	398.70	5.67	8.52	0.30	-126.43
Last 5	09:10:42	600.01	20.35	7.28	399.75	2.74	8.52	0.21	-132.66
Last 5	09:15:42	900.01	20.32	7.31	403.54	2.23	8.52	0.18	-132.33
Last 5	09:20:42	1200.00	19.99	7.32	408.70	1.79	8.52	0.17	-130.72
Last 5									
Variance 0			0.32	0.10	1.05			-0.09	-6.23
Variance 1			-0.03	0.03	3.79			-0.03	0.33
Variance 2			-0.33	0.01	5.16			-0.02	1.61

Notes

Using cellphone app Parameters stable

Grab Samples HGWA-3 Sampling at 924

ERM		CIPC				Project No				Sampling Date: 7/11/16		
		Hammer	JAD		-	Location	E AP			Sampler's Name: <u>MRGGLES</u>		
e; ell IO:		HGWA-			– Pump Type/Model:	A)7x13	Pyrv		Sar	mple Collection Time: 1569		
et 10. otal Depth (ft) ¹ :		25.7	,	-	Tubing Material:				Sample Purge Rate (L/min) ³ :			
epth to Water (ft):		8.60		Pump Intake Depth (ft): 20				Sample ID: 13 GV/A-4				
ell Diameter (in):		2		St	art/Stop Purge Time:	1435				Laboratory Analyses:		
ell Volume (gal) = 0.	,041d ² h:			•	Purge Rate (L/min)2:	<u>, 2</u>						
eli Volume (L) = gal				Tot	al Purge Volume (L):							
	hes) h = length of wat	er column (feet)		-	Purge Method:	Low-Flew W	eli Volume Othe	r.		QA/QC Collected? 1/15		
ell Type:	Flush (Stick Up bo	when Led		Sampling Method:	Pump Discharge	Other.			QA/QC I.D.		
ell Lock:	(Yes)	No				A STATE OF THE PARTY OF THE PAR						
ell Bolted:	Yes /	No.	Bolts Needed:		_	•				7		
ell Cap Condition:	\ \	Replace	Other			_	All sample contains	ers requiring chemical p	reservation proper	ly preserved prior to demob from well? Yes No		
ell Tag Present:	Good Yes	No	Water in Vault:	Yes	No							
Time	Temp.	Spec, Cond. (mS/cm) (µS/cm)	DO (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H ₂ O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/weil/weather/etc.)		
1440	24.05	427 9	1/2	6.65	95	8.04	200	1	8.90			
1418	23.88	444.2	1.00	1.68	127	6.09	4	2	8.92			
	2377	4452	1.63	1.69	416	515	 	3	8.97	Parameters stable waiting on too		
1450	23.53	4413	101	17.7	91.5	4.68		2-1	8.93			
1433	33.45	429	0.98	6.67	89.4	4.88	1	*5	8.73			
1500	23.45	41223	0.95	6.65	88.9	41 41		(,)	8-73			
1505	2. 21 2	16000	0.30	<u> </u>				The state of the s				
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				. <u></u>			<u> </u>					
Stabilizing		+/-	0.2 mg/L or 10% whichever is greater	+/-		<5 NTUs	>100 mL	>3L	<0.33 ft	1. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.		
Criteria ^{4, 5}		5%	(9)	0.2 unit	<u> </u>		< 250 mL	1	<u></u>	<u> </u>		
- Maximum purge rate	of 250 mL/min	nes . I ()								Purge Log QA/QC'd By:		
 Sample rate to be be Collect sample from 	elween 100 mL <i>im</i> in and 2 pump discharge wilhout	250 mL/min lubing contacting samp	ole container							Date:		
		d every 3 to 5 minutes										

(7) - Contact field team lead if drawdown > 0,33 ft - do not switch to 3 well volume method until instructed (8) - Preserve all samples as appropriate immediately following collection (9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Date: 2016-07-11 15:41:50

Pumping Information:

Alexis Peristaltic

Project Information:

Pump Information: **Operator Name** Tracy Wardell Pump Model/Type

Company Name **ERM Tubing Type LDPE** Project Name Tubing Diameter 0.17 in Hammond AP 4 Tubing Length Site Name Plant Hammond 25 ft

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 444575 Turbidity Make/Model

Pump placement from TOC 22 ft LaMotte

Well Information:

Final Pumping Rate Well ID HGWA-5 250 mL/min Well diameter Total System Volume 0.2015856 L 2 in Calculated Sample Rate Well Total Depth 27.4 ft 180 sec Stabilization Drawdown Screen Length 10 ft 5.52 in Depth to Water 7.53 ft **Total Volume Pumped** 8.25 L

Low-Flow Sampling Stabilization Summary

	Time Ela		Temp C	рН	SpCond µS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	15:26:49	540.02	21.15	6.54	249.35	6.29	7.98	1.17	34.27
Last 5	15:29:49	720.02	21.15	6.53	251.17	4.03	7.98	1.05	39.03
Last 5	15:32:49	900.02	21.11	6.55	252.93	4.25	7.99	0.94	31.27
Last 5	15:35:49	1080.02	21.15	6.54	250.91	3.15	7.99	0.88	46.13
Last 5	15:38:49	1260.02	21.15	6.54	252.73	2.63	7.99	0.79	37.48
Variance 0			-0.05	0.02	1.76			-0.11	-7.76
Variance 1			0.04	-0.00	-2.02			-0.06	14.86
Variance 2			0.00	-0.01	1.81			-0.09	-8.65

Notes

Started purging at 15:05

This is the real HGWA-5. The first file is for HGWA-6.

Grab Samples HGWA-5

Sample time 15:41

ERM			1000		GROUNDW	ATER SAMI	PLING LOG	SHEET				
Client:		GPC-2	Plant t	Vanimer	~	Project No	L:		····	Sampling Date: 7 (() ()		
Site:		Namo		<u> </u>		Location	10	G/A	-	Sampler's Name: Top Call Joseph C		
Well ID:		HBWA-			- Pump Type/Model:	Alexin	Peristo	eltic.	- Sa:	mple Collection Time: (436)		
Total Depth (fi) ¹ :			50.35	_	Tubing Material:		PPE	- 1 5 70007	-	Sample Purge Rate (L/min) ³ : 0.720		
Depth to Water (It):		7.15		 Pu	mp Intake Depth (ft):		- 7-7	1	•	Sample ID: HGWA-(A		
Well Diameter (in):		7		-	art/Stop Purge Time:	0256	- 1407	1476	-	Laboratory Analyses: TDS CI FSQ Metale		
Well Volume (gal) = 0	0.041d ² h:	6.98	LACOLITY WILLIAM	-	Purge Rate (L/min)²:	4.7	0.250	1	-	rads		
Well Volume (L) = gal		20.44	~~~	- Tata	al Purge Volume (L):	A 75	5		•	1000		
d = well diameter (inc				-	Purge Method:		ell Volume Othe	Е.	•	QA/QC Collected? YeS		
1	Flush (Stick Up			Sampling Method:	Pump Discharge	Other:	· · · · · ·	•	angolio, 478 for lateraly		
Well Type: Well Lock: (Yes	No No							•	nospecial ID Nist		
1	Yes NA	No	Bolts Needed:							anextra legation		
Well Bolted:	Good		Other		-		All sample contains	es manicina chemical r	reservation proper	y preserved prior to dernob from well? Yes No		
Well Cap Condition:	Yes	Replace No	Water in Vault:	Yes UA	No	•	Is an assemble accusating	version vicentials		1 179		
Well Tag Present: Time	Temp.	Spec. Cond. (mS/cm) (µS/cm)	DO (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/mln)	Purged Volume (L)	H₂O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)		
14.5	21,22	357.3	0.20	7.35	73.3	0.57	750	2.50	8.78			
1417	21.02	356.2	0.18	7.36	730	0.44	750	3.25	R45			
1420				7.35	73.4	0.48	250	4.00	849			
1423	21.06	1	10-12	7.31		0.40	250	7.52	8,53			
1426	21.10	356.6	0.15	1-0	21.0	0.57	1 20	9.1.	-coro			
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Piek)			0.2 mg/L or 10%	+/-			>100 mL			read wrong the on table when typing in initial date		
Stabilizing Criteria ^{4,5}		+/- 5%	whichever is greater	6.2 unit	ļ	<5 NTUs	< 250 mL	>3L	<0,33 ft			
(1) - Maximum purge rate (2) - Sample rate to be be (3) - Collect sample from p	atween 100 mL/min and 2	250 mL/min	<u>!</u>					<u> </u>		Purge Log QA/QC'd By: Date:		
(4) - Field parameter mea: (5) - Stabilization criteria b (6) - Monitor depth to wate	surements to be recorde based on three most race er every 3 to 5 minutes. "	d every 3 to 5 minutes. Int consecutive measur Well drawdown to be 0	ements. .33 ft or less. Purge/sas		ed as necessary to keep	drawdown below 0.3	3 ft.			Purge Log QA/QC'd By: Date:		
(7) - Contact fleid team led (8) - Preserve all samples (9) - DO 0.2 mg/L or 10%	as appropriate immediat	tely following collection		structed			ű.					

ERM

Date: 2016-07-12 10:15:43

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M.Thomas Company Name ERM

Project Name GPC- Plant Hammond

Site Name Default Site
Latitude 34° 15' 14.4"
Longitude -85° -20' -20.6"

Sonde SN 463453

Turbidity Make/Model LaMotte 2020we

Pump placement from TOC

25 ft

LDPE

.17 in

35 ft

Alexis Peristaltic

Well Information:

Well ID HGWC-7
Well diameter 2 in
Well Total Depth 29.8 ft
Screen Length 10 ft
Depth to Water 4.62 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3962198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:50:09	1200.01	22.73	7.12	675.36	0.21	4.71	0.28	64.88
Last 5	09:55:09	1500.00	22.49	7.12	675.86	0.06	4.71	0.34	63.36
Last 5	10:00:09	1800.00	22.72	7.12	676.37	0.04	4.71	0.35	60.80
Last 5	10:05:09	2100.00	22.78	7.12	675.78	0.04	4.71	0.34	62.06
Last 5	10:10:09	2400.00	22.85	7.13	677.91	0.00	4.71	0.37	64.44
Variance 0			0.23	0.00	0.52			0.01	-2.56
Variance 1			0.05	-0.01	-0.60			-0.01	1.26
Variance 2			0.07	0.01	2.13			0.03	2.38

Notes

All parameters stable.

Grab Samples

Date: 2016-07-12 10:45:05

Alexis Peristaltic

Project Information:		Pump Information:
Operator Name	Andreas Shoredits	Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC-HammondTubing Diameter0.17 inSite NameGPC-HammondTubing Length26.0 ft

Latitude 0° 0' 0" Longitude 0° 0' 0" Sonde SN 463072

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 19.0 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-8 150 mL/min Well diameter Total System Volume 0.326049 L 2.00 in Calculated Sample Rate Well Total Depth 300 sec 24.7 ft Screen Length 10.0 ft Stabilization Drawdown 0.2 in Depth to Water **Total Volume Pumped** 3.75 ft 14.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:14:43	3299.99	21.80	6.87	975.20	0.35	3.76	0.12	74.00
Last 5	10:19:43	3599.99	21.97	6.87	917.74	0.23	3.76	0.18	74.32
Last 5	10:24:43	3899.99	21.95	6.88	889.12	0.28	3.76	0.28	72.47
Last 5	10:29:43	4199.99	22.00	6.87	920.77	0.13	3.76	0.43	73.97
Last 5	10:34:43	4499.99	21.83	6.88	923.30	0.30	3.76	0.39	72.48
Variance 0			-0.01	0.01	-28.62			0.10	-1.85
Variance 1			0.05	-0.00	31.65			0.15	1.50
Variance 2			-0.17	0.00	2.53			-0.04	-1.49

Notes

Parameters are stable for three consecutive readings; turbidity is < 5.0 NTU; drawdown is minimal; Sample time is 10:40

Grab Samples HGWC-8

Groundwater sample

Date: 2016-07-12 10:02:59

Pump Information:

Pump Model/Type

Tubing Diameter

Pumping Information:

Tubing Length

Tubing Type

Alexis Peristaltic

LDPE

45 ft

0.17 in

Project Information:

Operator Name Tracy Wardell

Company Name ERM
Project Name Hammond AP
Site Name Plant Hammond

Latitude 0° 0′ 0″ U
Longitude 0° 0′ 0″ Sonde SN 444575
Turbidity Make/Model LaMotte

LaMotte Pump placement from TOC 41.5 ft

Well Information:

Final Pumping Rate Well ID HGWC-9 250 mL/min Well diameter Total System Volume 0.290854 L 2 in Calculated Sample Rate Well Total Depth 46.60 ft 180 sec Stabilization Drawdown Screen Length 10 ft 0.48 in Depth to Water 14.06 ft **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	09:51:09	180.12	20.80	6.83	1139.59	0.60	14.10	0.24	29.32
Last 5	09:54:09	360.02	20.66	6.83	1147.68	0.54	14.10	0.21	26.35
Last 5	09:57:09	540.02	20.84	6.86	1150.64	0.57	14.10	0.19	20.25
Last 5	10:00:09	720.02	20.89	6.87	1143.45	0.61	14.10	0.18	27.07
Last 5									
Variance 0			-0.14	0.01	8.10			-0.03	-2.97
Variance 1			0.18	0.03	2.96			-0.02	-6.11
Variance 2			0.05	0.01	-7.19			-0.02	6.83

Notes

Started purge at 0940 Great recharge. Pulled Dup-1 here.

Grab Samples HGWC-9 10:00 Dup-1 10:05



Date: 2016-07-12 11:20:20

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Hammond AP
Site Name Plant Hammond AP

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 444107
Turbidity Make/Model Lamotte

Pump Information:

Pump Model/Type Alexis peristaltic

Tubing TypeLDPETubing Diameter.17 inTubing Length26 ft

Pump placement from TOC 17 ft

Well Information:

Well IDHGWC-10Well diameter2 inWell Total Depth22.6 ftScreen Length10 ftDepth to Water14.17 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.326049 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.7 in
Total Volume Pumped 18.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	sed Temp C pH Sp		SpCond µS	SpCond μS/cmTurb NTU		RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:58:36	1800.00	19.54	6.58	933.08			0.06	83.74
Last 5	11:03:36	2099.99	19.66	6.58	932.88			0.06	83.15
Last 5	11:08:36	2399.99	19.90	6.58	955.83	4.82	14.24	0.09	82.89
Last 5	11:13:36	2699.99	21.28	6.58	935.92	2.42	14.24	0.12	82.82
Last 5	11:18:36	2999.98	21.64	6.58	934.12	2.70	14.24	0.12	82.37
Variance 0			0.24	-0.01	22.96			0.03	-0.26
Variance 1			1.38	0.01	-19.91			0.03	-0.07
Variance 2			0.36	0.00	-1.81			0.00	-0.45

Notes

Starting in well screen so must purge 3 well volumes at 500ml/min. Will decrease to 200 after 3rd well volume. Parameters stable

Grab Samples HGWC-10

Sampling at 1121

Date: 2016-07-12 11:33:32

Pump Information:

Alexis Peristaltic

Project Information:

Operator Name Tracy Wardell

Pump Model/Type Company Name **ERM Tubing Type LDPE** Project Name Tubing Diameter 0.17 in Hammond AP Tubing Length Site Name Plant Hammond 25 ft

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 444575

Turbidity Make/Model Pump placement from TOC 19 ft LaMotte

Pumping Information: Well Information:

Final Pumping Rate Well ID HGWC-11 500 mL/min Well diameter Total System Volume 0.2015856 L 2 in Calculated Sample Rate Well Total Depth 22.3 ft 180 sec Screen Length 10 ft Stabilization Drawdown 0 in Depth to Water 15.17 ft **Total Volume Pumped** 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	lapsed Temp C pH SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV		
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	11:19:28	1080.01	20.41	6.02	861.14	0.62	15.27	1.31	70.54
Last 5	11:22:28	1260.01	20.32	6.04	865.26	0.47	15.27	1.27	69.08
Last 5	11:25:28	1440.01	20.39	6.03	867.25	0.49	15.27	1.30	68.86
Last 5	11:28:28	1620.01	20.40	6.05	865.22	0.24	15.27	1.23	68.40
Last 5	11:31:28	1800.01	20.46	6.04	863.45	0.23	15.27	1.30	68.30
Variance 0			0.07	-0.01	1.99			0.03	-0.22
Variance 1			0.01	0.02	-2.03			-0.07	-0.46
Variance 2			0.05	-0.01	-1.77			0.07	-0.10

Notes

Purging volume. Started at 1053, will slow to 250 mL/min for sampling Reduced flow to 250 mL/min for sampling. Great recharge.

Grab Samples HGWC-11

Sample time 11:35

Date: 2016-07-12 12:27:28

Alexis Peristaltic

Project Information:

Pump Information: **Operator Name** Tracy Wardell Pump Model/Type

Company Name **ERM Tubing Type LDPE** Project Name Tubing Diameter 0.17 in Hammond AP Tubing Length Site Name Plant Hammond 32 ft

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 444575

Turbidity Make/Model Pump placement from TOC 30 ft LaMotte

Pumping Information: Well Information:

Final Pumping Rate Well ID HGWC-12 250 mL/min Well diameter Total System Volume 2 in 0.2328295 L Calculated Sample Rate Well Total Depth 35.1 ft 180 sec Stabilization Drawdown Screen Length 10 ft 0.24 in Depth to Water 15.16 ft **Total Volume Pumped** 4.75 L

Low-Flow Sampling Stabilization Summary

	Time		Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:16:18	180.09	21.46	6.91	1227.15	0.27	15.18	0.22	36.89
Last 5	12:19:18	360.02	21.46	6.91	1224.09	0.21	15.18	0.20	37.18
Last 5	12:22:18	540.02	21.57	6.87	1231.42	0.21	15.18	0.18	36.66
Last 5	12:25:18	720.02	21.64	6.87	1231.66	0.20	15.18	0.17	37.17
Last 5									
Variance 0			0.00	-0.00	-3.06			-0.02	0.29
Variance 1			0.10	-0.04	7.33			-0.02	-0.52
Variance 2			0.07	0.01	0.24			-0.02	0.51

Notes

Started purge at 1206

Extra volume for lab QC pulled here - 1/2 gallon for rads (lab request). Great recharge

Grab Samples

Date: 2016-07-12 12:53:20

Project Information:

Pump Information:

Pump Information:

Operator Name Andreas Shoredits Pump Model/Type Alexis Peristaltic Company Name ERM Tubing Type LDPE

Project Name GPC-Hammond Tubing Diameter 0.17 in Site Name GPC-Hammond Tubing Length 46.0 ft Latitude 0° 0' 0"

Longitude 0° 0' 0" Sonde SN 463072

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 40.0 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-13 150 mL/min Well diameter Total System Volume 0.4153174 L 2.00 in Calculated Sample Rate Well Total Depth 44.6 ft 300 sec Screen Length Stabilization Drawdown 0.7 in 10.0 ft Depth to Water 17.46 ft **Total Volume Pumped** 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:54:54	900.01	22.30	7.02	825.84	1.25	17.53	0.19	-46.32
Last 5	11:59:54	1200.02	22.09	7.03	825.22	0.73	17.53	0.17	-43.88
Last 5	12:04:54	1500.09	22.20	7.04	763.27	1.10	17.52	0.52	-41.99
Last 5	12:09:54	1800.02	22.01	7.04	776.56	1.45	17.52	0.48	-40.98
Last 5	12:14:54	2100.02	22.18	7.04	759.86	1.76	17.52	0.49	-40.74
Variance 0			0.11	0.00	-61.94			0.35	1.89
Variance 1			-0.19	0.00	13.28			-0.04	1.01
Variance 2			0.16	0.00	-16.70			0.01	0.24

Notes

Parameters are stable after three consecutive readings; turbidity is < 5.0 NTU; drawdown is minimal; Sample time is 12:20; TD is 45.55 ft btoc

Grab Samples HGWC-13

Groundwater sample

Date: 2016-07-12 13:53:04

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Markevious Thomas

Company Name ERM

Project Name GPC Plant Hammond Site Name GPC- Plant Hammond

Latitude 35° 6' 55.95" Longitude -81° -3' -19.2"

Sonde SN 463453

Turbidity Make/Model LaMotte 2020we

Pump placement from TOC

38 ft

LDPE

.17 in

48 ft

Alexis Peristaltic

Well Information:

Well ID HGWC-14
Well diameter 2 in
Well Total Depth 43 ft
Screen Length 10 ft
Depth to Water 24.37 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4542443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:30:23	1200.02	25.51	4.48	3439.63	2.69	24.40	0.28	355.72
Last 5	13:35:23	1500.02	25.43	4.47	3450.48	3.80	24.40	0.31	356.68
Last 5	13:40:23	1800.02	25.22	4.48	3465.14	1.62	24.40	0.26	350.37
Last 5	13:45:23	2100.02	25.28	4.48	3479.51	1.88	24.40	0.24	348.25
Last 5	13:50:23	2400.02	25.36	4.49	3486.12	1.37	24.40	0.24	342.16
Variance 0			-0.22	0.01	14.66			-0.04	-6.31
Variance 1			0.06	0.00	14.37			-0.02	-2.12
Variance 2			0.09	0.01	6.61			-0.01	-6.09

Notes

All parameters stable.

Grab Samples

Date: 2016-07-12 12:31:24

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Hammond GW
Site Name Plant Hammond AP

 Latitude
 0° 0' 0"

 Longitude
 0° 0' 0"

 Sonde SN
 444107

Turbidity Make/Model Lamotte2020

Well Information:

Well ID HGWC-15
Well diameter 2 in
Well Total Depth 38 ft
Screen Length 10 ft
Depth to Water 16.39 ft

Pump Information:

Pump Model/Type Alexis peristaltic

33 ft

Tubing TypeLDPETubing Diameter.17 inTubing Length42 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3974638 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.2 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:15:04	300.06	22.38	6.22	1480.34	1.89	17.10	0.23	105.53
Last 5	12:20:04	600.02	22.40	6.21	1477.95	0.89	17.12	0.18	103.33
Last 5	12:25:04	900.02	22.36	6.19	1489.76	0.95	17.11	0.16	101.78
Last 5	12:30:04	1200.02	22.52	6.17	1481.99	0.98	17.11	0.15	101.43
Last 5									
Variance 0			0.02	-0.01	-2.39			-0.05	-2.19
Variance 1			-0.04	-0.02	11.82			-0.02	-1.55
Variance 2			0.16	-0.02	-7.77			-0.01	-0.35

Notes

Parameters stable

Grab Samples HGWC-15

Sampling at 1235

Date: 2016-07-12 15:06:28

Project Information:

Operator Name Andreas Shoredits

Company Name **ERM** Project Name **GPC-Hammond** Site Name **GPC-Hammond**

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 463072

Turbidity Make/Model LaMotte 2020we

Well Information:

Well ID HGWC-16 Well diameter 2.00 in Well Total Depth 33.0 ft Screen Length 10.0 ft Depth to Water 11.93 ft

Pump Information:

Pump Model/Type Alexis Peristaltic

Tubing Type LDPE Tubing Diameter 0.17 in Tubing Length 34.0 ft

Pump placement from TOC

28.0 ft

Pumping Information:

Final Pumping Rate 100 mL/min Total System Volume 0.3617564 L Calculated Sample Rate 300 sec Stabilization Drawdown 5.4 in **Total Volume Pumped** 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:03:46	1200.02	24.38	7.10	878.63	1.47	12.36	0.30	-68.77
Last 5	14:08:46	1500.02	24.44	7.11	874.58	2.48	12.36	0.28	-66.93
Last 5	14:13:46	1800.02	24.60	7.11	874.81	3.77	12.36	0.52	-65.93
Last 5	14:18:45	2099.96	24.89	7.10	834.14	4.96	12.36	0.59	-65.88
Last 5	14:23:45	2399.96	24.46	7.10	841.59	3.78	12.38	0.52	-63.80
Variance 0			0.16	0.00	0.23			0.24	1.00
Variance 1			0.29	-0.00	-40.67			0.07	0.05
Variance 2			-0.43	-0.00	7.45			-0.07	2.08

Notes

Parameter are stable after three consecutive readings; turbidity is < 5.0 NTU; drawdown initially large but stabilized; Sample time is 14:30; TD is 33.45 ft btoc

Grab Samples HGWC-16

Groundwater sample

Date: 2016-07-12 15:02:05

Pumping Information:

Alexis Peristaltic

Project Information:

Pump Information: Operator Name Tracy Wardell Pump Model/Type

Company Name **ERM Tubing Type LDPE** Project Name Tubing Diameter 0.17 in Hammond AP Tubing Length Site Name Plant Hammond 25 ft

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 444575

Turbidity Make/Model Pump placement from TOC 23 ft LaMotte

Well Information:

Final Pumping Rate Well ID HGWC-17 250 mL/min Well diameter Total System Volume 0.2015856 L 2 in Calculated Sample Rate Well Total Depth 27.8 ft 300 sec Stabilization Drawdown Screen Length 10 ft 4.8 in Depth to Water 17.25 ft **Total Volume Pumped** 20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	14:39:57	3000.01	22.45	6.10	1294.64	0.21	17.65	0.13	74.53
Last 5	14:44:57	3300.01	22.54	6.09	1294.16	0.26	17.65	0.12	74.45
Last 5	14:49:57	3600.01	22.65	6.10	1294.10	0.23	17.65	0.13	74.58
Last 5	14:54:57	3900.01	22.67	6.09	1287.37	0.22	17.65	0.12	74.56
Last 5	14:59:57	4200.01	22.73	6.09	1291.01	0.22	17.65	0.13	74.67
Variance 0			0.11	0.00	-0.06			0.00	0.13
Variance 1			0.02	-0.00	-6.73			-0.01	-0.02
Variance 2			0.07	0.00	3.64			0.01	0.11

Notes

WL at top of screen, so purging to volume No issues. Good recharge. Purged to volume.

Grab Samples HGWC-11

Sample time 15:04

Date: 2016-07-12 15:19:56

Project Information:

Operator Name Myles Rogers
Company Name ERM

Company Name ERM
Project Name Hammond GW
Site Name Plant Hammond AP

 Latitude
 0° 0' 0"

 Longitude
 0° 0' 0"

 Sonde SN
 444107

Turbidity Make/Model Lamotte2020

Well Information:

Well ID HGWC-18
Well diameter 2 in
Well Total Depth 27.7 ft
Screen Length 10 ft
Depth to Water 17.04 ft

Pump Information:

Pump Model/Type Alexis peristaltic

Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 30 ft

Pump placement from TOC 22 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3439027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.6 in
Total Volume Pumped 22.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:58:20	2403.02	21.76	4.55	2135.22			0.10	206.50
Last 5	15:03:21	2704.02	21.76	4.56	2125.70		(5)	0.09	203.17
Last 5	15:08:21	3004.02	22.36	4.54	2195.07	0.40	17.38	0.11	200.64
Last 5	15:13:21	3304.02	23.84	4.56	2134.10	0.49	17.20	0.14	199.95
Last 5	15:18:21	3604.02	23.70	4.58	2119.04	0.43	17.20	0.14	197.54
Variance 0			0.59	-0.02	69.37			0.03	-2.53
Variance 1			1.49	0.02	-60.96			0.02	-0.68
Variance 2			-0.15	0.01	-15.07			0.01	-2.42

Notes

Water level within 1 foot of screen. Purging 3well volumes Parameters stable

Grab Samples HGWC-18

Sampling at 1521

Date: 2016-05-19 09:28:51

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Plant Hammond-AP
Site Name Plant Hammond

Site Name Plant Ha
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449102
Turbidity Make/Model Hanna

Pump Information:

Pump Model/Type Alexis peristaltic

Tubing TypeLDPETubing Diameter.17 inTubing Length37 ft

Pump placement from TOC 27 ft

Well Information:

Well ID HGWA-1
Well diameter 2 in
Well Total Depth 32.31 ft
Screen Length 10 ft
Depth to Water 17.46 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3751467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.4 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	09:06:35	900.02	17.33	7.28	686.12	3.44	18.09	0.83	60.59
Last 5	09:11:35	1200.02	17.35	7.27	680.43	2.69	18.09	0.71	50.84
Last 5	09:16:35	1500.03	17.36	7.27	683.50	2.68	18.09	0.64	42.05
Last 5	09:21:35	1800.02	17.50	7.27	669.27	2.17	18.09	0.58	39.87
Last 5	09:26:35	2100.02	17.41	7.27	661.79	2.10	18.09	0.55	40.30
Variance 0			0.02	-0.01	3.06			-0.07	-8.79
Variance 1			0.14	0.00	-14.22			-0.06	-2.19
Variance 2			-0.09	0.00	-7.49			-0.03	0.43

Notes

Sampling at 930.

Grab Samples HGWA-1

Parameters stable

Date: 2016-05-19 11:23:40

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Plant Hammond-AP
Site Name Plant Hammond

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449102
Turbidity Make/Model Hanna

Pump placement from TOC

Well Information:

Well ID HGWA-2
Well diameter 2 in
Well Total Depth 27.9 ft
Screen Length 10 ft
Depth to Water 8.17 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3439027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.3 in
Total Volume Pumped 11 L

Alexis peristaltic

LDPE

.17 in

30 ft

22 ft

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	11:02:01	2100.02	19.34	5.89	219.49	4.64	8.54	0.31	86.31
Last 5	11:07:01	2400.02	19.26	5.85	213.57	4.15	8.54	0.29	91.41
Last 5	11:12:01	2700.02	19.33	5.83	210.72	3.99	8.54	0.26	93.63
Last 5	11:17:01	3000.02	19.31	5.82	207.42	3.77	8.54	0.22	97.13
Last 5	11:22:01	3300.02	19.28	5.81	205.52	3.68	8.54	0.20	98.11
Variance 0			0.07	-0.02	-2.86			-0.04	2.22
Variance 1			-0.01	-0.02	-3.29			-0.04	3.51
Variance 2			-0.04	-0.01	-1.91			-0.01	0.97

Notes

Sampling at 1126

Grab Samples HGWA-2

All parameters stable

Date: 2016-05-19 16:08:00

Project Information:

Operator Name Andreas Shoredits

Company Name ERM

Project Name GPC - Hammond Site Name Hammond

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 450141

Turbidity Make/Model Hanna HI 98703

Pump Information:

Pumping Information:

Pump Model/Type Alexis Peristaltic V2.0

100 mL/min

300 sec

0 in

3.6 L

0.3751467 L

Tubing TypeLDPETubing Diameter0.17 inTubing Length37 ft

Pump placement from TOC 5 ft

Well Information:

Well IDHGWA-3Final Pumping RateWell diameter2.00 inTotal System VolumeWell Total Depth44.6 ftCalculated Sample RateScreen Length10.0 ftStabilization DrawdownDepth to Water7.96 ftTotal Volume Pumped

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	15:39:39	900.02	20.43	7.50	459.74	3.85	7.96	0.42	-131.29
Last 5	15:44:39	1200.02	20.36	7.47	478.35	3.53	7.96	0.44	-124.99
Last 5	15:49:39	1500.02	20.28	7.46	483.74	4.10	7.96	0.27	-122.34
Last 5	15:54:39	1800.00	20.27	7.45	490.59	4.88	7.96	0.27	-120.00
Last 5	15:59:39	2100.00	20.33	7.45	490.23	3.35	7.96	0.19	-117.25
Variance 0			-0.08	-0.01	5.40			-0.17	2.64
Variance 1			-0.01	-0.01	6.84			0.00	2.35
Variance 2			0.05	-0.00	-0.35			-0.08	2.75

Notes

TD measured after sampling, see field notes DUP-1 taken on this well

Grab Samples HGWA-3 Groundwater Sample

Date: 2016-05-19 17:34:52

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Plant Hammond-AP
Site Name Plant Hammond

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449102
Turbidity Make/Model Hanna

Pump Information:

Pump Model/Type Alexis peristaltic

Tubing TypeLDPETubing Diameter.17 inTubing Length30 ft

Pump placement from TOC 20 ft

Well Information:

Well ID HGWA-4
Well diameter 2 in
Well Total Depth 25.7 ft
Screen Length 10 ft
Depth to Water 7.69 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3439027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.1 in
Total Volume Pumped 14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	17:12:39	3300.01	18.84	6.46	230.85	2.89	8.10	0.38	87.08
Last 5	17:17:39	3600.01	19.07	6.48	233.48	2.72	8.10	0.36	85.17
Last 5	17:22:39	3900.01	19.09	6.48	232.17	2.71	8.10	0.36	84.69
Last 5	17:27:39	4200.01	19.06	6.49	236.67	2.70	8.10	0.36	83.07
Last 5	17:32:39	4500.01	18.97	6.51	237.55	2.54	8.10	0.36	81.54
Variance 0			0.02	0.00	-1.31			-0.01	-0.47
Variance 1			-0.03	0.01	4.51			0.01	-1.62
Variance 2			-0.09	0.02	0.87			-0.00	-1.53

Notes

Sample at 1737

Grab Samples HGWA-4

Parameters stable

Date: 2016-05-19 10:27:20

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Tracy Wardell

Company Name **ERM** Project Name Plant Hammond CCR

Site Name Default Site 00 0' 0" Latitude 00 0' 0" Longitude

Sonde SN 444107 Turbidity Make/Model Hanna

Pump placement from TOC

22.4 ft

Pegasus Alexis Peristaltic

LDPE

24 ft

0.17 in

Well Information:

Well ID HGWA-5 Well diameter 2 in Well Total Depth 27.4 ft Screen Length 10 ft Depth to Water 6.56 ft

Pumping Information:

Final Pumping Rate 150 mL/min Total System Volume 0.1971222 L Calculated Sample Rate 180 sec Stabilization Drawdown 5.28 in **Total Volume Pumped** 7.35 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 1000
Last 5	10:12:32	1800.02	18.61	6.60	262.86	9.54	7.01	0.14	7.28
Last 5	10:15:32	1980.02	18.67	6.62	266.30	8.68	7.00	0.15	5.11
Last 5	10:18:32	2160.02	18.66	6.62	267.57	4.45	7.00	0.15	4.57
Last 5	10:21:32	2340.02	18.64	6.61	267.85	1.59	7.00	0.15	4.87
Last 5	10:24:32	2520.02	18.66	6.62	268.83	1.82	7.00	0.15	5.14
Variance 0			-0.01	-0.00	1.27			0.00	-0.53
Variance 1			-0.02	-0.00	0.28			-0.01	0.29
Variance 2			0.02	0.00	0.98			0.00	0.27

Notes

Well tag says HGWC-5 Slowed purge rate to 100 mL/min for turbidity

Grab Samples HGWA-5 Sample time 1027

Date: 2016-05-20 09:22:27

Project Information:

Pump Information:

Operator Name Company Name Project Name Tracy Wardell ERM Pump Model/Type Tubing Type Tubing Diameter Alexis Peristaltic LDPE

Project Name Site Name

Hammond AP GPC-Plant Hammond-Hammond AP

Tubing Diamete Tubing Length 0.17 in 47 ft

Latitude Longitude

Sonde SN

0° 0' 0" 0° 0' 0" 444107

444107 Hanna

Pump placement from TOC

45 ft

Well Information:

Turbidity Make/Model

Well ID
Well diameter
Well Total Depth
Screen Length
Depth to Water

HGWA-6 2 in 50.00 ft 10 ft 6.25 ft Pumping Information:

Final Pumping Rate
Total System Volume
Calculated Sample Rate
Stabilization Drawdown
Total Volume Pumped

150 mL/min 0.2997809 L 180 sec 11.16 in 3.45 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:08:48	540.03	17.57	7.57	375.35	0.09	7.11	0.26	-96.45
Last 5	09:11:48	720.02	17.54	7.57	374.69	0.07	7.16	0.24	-92.14
Last 5	09:14:48	900.02	17.52	7.56	374.58	0.03	7.18	0.23	-89.42
Last 5	09:17:48	1080.03	17.50	7.57	375.27	0.02	7.18	0.22	-90.01
Last 5	09:20:48	1260.03	17.49	7.58	375.59	0.01	7.18	0.21	-90.95
Variance 0			-0.02	-0.01	-0.10			-0.01	2.72
Variance 1			-0.02	0.00	0.69			-0.01	-0.60
Variance 2			-0.01	0.01	0.32			-0.01	-0.94

Notes

Grab Samples HGWA-6 Sample time 0923

Date: 2016-05-20 09:11:17

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Andreas Shoredits

Company Name **ERM**

Project Name GPC - Hammond Site Name Hammond

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 450141

Turbidity Make/Model Hanna HI 98703 Pump placement from TOC

5.0 ft

Alexis Peristaltic V2.0

LDPE

0.17 in

25.0 ft

Well Information:

Well ID HGWA-7 Well diameter 2.00 in Well Total Depth 29.8 ft Screen Length 10.0 ft Depth to Water 4.85 ft

Pumping Information: Final Pumping Rate 100 mL/min Total System Volume 0.3215856 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.5 in **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	08:42:12	600.02	18.55	7.13	798.85	0.49	4.94	0.20	40.08
Last 5	08:47:12	900.02	18.45	7.14	799.39	0.65	4.94	0.15	36.86
Last 5	08:52:12	1200.02	18.44	7.15	799.20	0.39	4.94	0.13	35.86
Last 5	08:57:12	1500.02	18.40	7.14	799.04	0.49	4.94	0.12	33.67
Last 5	09:02:12	1800.02	18.36	7.14	799.26	0.43	4.94	0.11	34.53
Variance 0			-0.02	0.00	-0.19			-0.02	-1.01
Variance 1			-0.04	-0.00	-0.16			-0.01	-2.18
Variance 2			-0.03	-0.00	0.22			-0.01	0.85

Notes

TD measured after sampling, see field notes

Grab Samples HGWA-7

Groundwater Sample

Date: 2016-05-20 09:11:17

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Andreas Shoredits

Company Name ERM

Project Name GPC - Hammond Hammond

Latitude 0° 0' 0" Longitude 0° 0' 0"

Sonde SN 450141

Turbidity Make/Model Hanna HI 98703

Pump placement from TOC

5.0 ft

LDPE

0.17 in

25.0 ft

Alexis Peristaltic V2.0

Well Information:

Well ID HGWC-7
Well diameter 2.00 in
Well Total Depth 29.8 ft
Screen Length 10.0 ft
Depth to Water 4.85 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3215856 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.5 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	08:42:12	600.02	18.55	7.13	798.85	0.49	4.94	0.20	40.08
Last 5	08:47:12	900.02	18.45	7.14	799.39	0.65	4.94	0.15	36.86
Last 5	08:52:12	1200.02	18.44	7.15	799.20	0.39	4.94	0.13	35.86
Last 5	08:57:12	1500.02	18.40	7.14	799.04	0.49	4.94	0.12	33.67
Last 5	09:02:12	1800.02	18.36	7.14	799.26	0.43	4.94	0.11	34.53
Variance 0			-0.02	0.00	-0.19			-0.02	-1.01
Variance 1			-0.04	-0.00	-0.16			-0.01	-2.18
Variance 2			-0.03	-0.00	0.22			-0.01	0.85

Notes

TD measured after sampling, see field notes

Grab Samples HGWA-7

Groundwater Sample

Date: 2016-05-20 09:07:03

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Plant Hammond-AP
Site Name Plant Hammond

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449102
Turbidity Make/Model Hanna

Pump placement from TOC

Well Information:

Well ID HGWC-8
Well diameter 2 in
Well Total Depth 24.7 ft
Screen Length 10 ft
Depth to Water 4.11 ft

Pumping Information:
Final Pumping Rate 200 mL/min
Total System Volume 0.3349758 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.39 in

Alexis peristaltic

LDPE

.17 in

28 ft

19 ft

Stabilization Drawdown 0.39 Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	08:43:55	300.09	18.63	7.00	959.01	7.26	4.15	0.26	98.72
Last 5	08:48:55	600.02	18.59	6.99	959.94	4.99	4.15	0.17	76.19
Last 5	08:53:55	900.02	18.61	6.99	960.44	2.73	4.15	0.14	69.86
Last 5	08:58:55	1200.02	18.55	6.99	961.50	2.02	4.15	0.13	67.01
Last 5	09:03:55	1500.02	18.53	6.99	962.52	1.46	4.15	0.12	65.65
Variance 0			0.02	0.00	0.49			-0.03	-6.33
Variance 1			-0.06	-0.00	1.06			-0.01	-2.85
Variance 2			-0.03	0.00	1.02			-0.01	-1.36

Notes

Sampling at 909

Grab Samples HGWA-8 Parameters stable

Date: 2016-05-23 11:58:51

Pump Information:

Pump Model/Type

Project Information:

Operator Name Myles Rogers

Company Name **ERM** Project Name Plant Hammond-AP Site Name Plant Hammond

Latitude 00 0' 0" 00 0' 0" Longitude 449102 Sonde SN Turbidity Make/Model Hanna

Tubing Diameter

LDPE Tubing Type .17 in Tubing Length 50 ft

Alexis peristaltic

Pump placement from TOC 41 ft

Well Information:

Well ID HGWC-9 Well diameter 2 in Well Total Depth 46.6 ft Screen Length 10 ft Depth to Water 13.60 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.4331712 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.03 in **Total Volume Pumped** 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	11:37:29	2700.01	20.57	7.23	1253.08	5.30	13.63	0.13	10.80
Last 5	11:42:29	3000.01	20.48	7.23	1257.20	5.58	13.63	0.13	7.98
Last 5	11:47:29	3300.01	20.66	7.23	1256.37	4.82	13.63	0.13	12.59
Last 5	11:52:29	3600.01	20.81	7.23	1250.29	3.37	13.63	0.12	8.95
Last 5	11:57:29	3900.01	20.96	7.23	1246.94	3.12	13.63	0.12	12.77
Variance 0			0.18	-0.00	-0.83			-0.01	4.61
Variance 1			0.15	0.00	-6.08			-0.00	-3.64
Variance 2			0.15	-0.00	-3.35			-0.01	3.82

Notes

Sampling at 1200

Grab Samples HGWC-9

Date: 2016-05-23 14:05:57

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Plant Hammond-AP
Site Name Plant Hammond

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449102
Turbidity Make/Model Hanna

Pump Information:

Pump Model/Type Alexis peristaltic

Tubing TypeLDPETubing Diameter.17 inTubing Length27 ft

Pump placement from TOC 17 ft

Well Information:

Well ID HGWA-10
Well diameter 2 in
Well Total Depth 22.6 ft
Screen Length 10 ft
Depth to Water 13.48 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3305124 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.05 in
Total Volume Pumped 19.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	13:42:17	2700.02	20.00	6.83	1005.55	2.52	13.54	0.06	61.02
Last 5	13:47:17	3000.02	19.77	6.84	992.28	2.15	13.54	0.06	59.04
Last 5	13:52:17	3300.02	21.37	6.83	994.96	1.79	13.53	0.09	60.28
Last 5	13:57:17	3600.01	21.53	6.83	994.39	1.28	13.53	0.09	58.90
Last 5	14:02:17	3900.01	21.69	6.83	1001.69	1.12	13.53	0.10	58.12
Variance 0			1.60	-0.01	2.69			0.03	1.24
Variance 1			0.16	-0.00	-0.58			-0.00	-1.38
Variance 2			0.15	-0.00	7.30			0.00	-0.78

Notes

Sampling at 1406. Water level in screen so purged 3 WV. 5.6 L per well volume. 1st at 1325 2nd at 1336 3rd at 1347. Purged at 500ml/min then decreased to 200 at 1347 and for sampling

Grab Samples HGWC-10

Date: 2016-05-23 14:05:57

Project Information:

Operator Name Myles Rogers

Company Name ERM Project Name Plant Hammond-AP Site Name Plant Hammond

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 449102

Turbidity Make/Model Hanna

Well Information:

Well ID HGWC-10 Well diameter 2 in Well Total Depth 22.6 ft Screen Length 10 ft Depth to Water 13.48 ft

Pump Information:

Pump Model/Type Alexis peristaltic

17 ft

Tubing Type LDPE Tubing Diameter .17 in Tubing Length 27 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.3305124 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.05 in **Total Volume Pumped** 19.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	13:42:17	2700.02	20.00	6.83	1005.55	2.52	13.54	0.06	61.02
Last 5	13:47:17	3000.02	19.77	6.84	992.28	2.15	13.54	0.06	59.04
Last 5	13:52:17	3300.02	21.37	6.83	994.96	1.79	13.53	0.09	60.28
Last 5	13:57:17	3600.01	21.53	6.83	994.39	1.28	13.53	0.09	58.90
Last 5	14:02:17	3900.01	21.69	6.83	1001.69	1.12	13.53	0.10	58.12
Variance 0			1.60	-0.01	2.69			0.03	1.24
Variance 1			0.16	-0.00	-0.58			-0.00	-1.38
Variance 2			0.15	-0.00	7.30			0.00	-0.78

Notes

Sampling at 1406. Water level in screen so purged 3 WV. 5.6 L per well volume. 1st at 1325 2nd at 1336 3rd at 1347. Purged at 500ml/min then decreased to 200 at 1347 and for sampling

Grab Samples HGWC-10

Date: 2016-05-23 12:09:54

Project Information:

Pump Information:

Operator Name Company Name Project Name Tracy Wardell ERM Hammond AP Pump Model/Type Tubing Type Tubing Diameter Alexis Peristaltic LDPE

Project Name Site Name Latitude

GPC-Plant Hammond-Hammond AP 0° 0' 0" 0° 0' 0"

Tubing Diameter
Tubing Length

0.17 in 20 ft

Longitude Sonde SN 0º 0' 0" 444107 Hanna

Pump placement from TOC

18.5 ft

Well Information:

Turbidity Make/Model

Well ID
Well diameter
Well Total Depth
Screen Length
Depth to Water

HGWC-11 2 in 22.3 ft 10 ft 14.66 ft Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.1792685 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 1.08 in
Total Volume Pumped 18.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:55:03	3060.02	19.28	6.21	864.78	0.12	14.75	1.65	104.70
Last 5	11:58:03	3240.02	19.27	6.21	858.76	0.10	14.75	1.61	104.29
Last 5	12:01:03	3420.02	19.15	6.23	875.95	0.10	14.75	1.52	102.96
Last 5	12:04:03	3600.02	19.06	6.24	875.64	0.12	14.75	1.49	102.81
Last 5	12:07:03	3780.02	19.15	6.22	864.28	0.10	14.75	1.58	102.12
Variance 0			-0.13	0.01	17.19			-0.09	-1.33
Variance 1			-0.09	0.02	-0.31			-0.03	-0.15
Variance 2			0.09	-0.02	-11.36			0.08	-0.69

Notes

Purging to 3 wv as wl is in screened zone Purged to 3 wv as water was in screened interval. Pulled DUP-2 here

Grab Samples HGWC-11

Sample time 1210

DUP-2

Sample time 1210

Date: 2016-05-23 13:49:13

Project Information:

Pump Information:

Operator Name Company Name Project Name

Tracy Wardell **ERM** Hammond AP

Pump Model/Type **Tubing Type** Tubing Diameter GPC-Plant Hammond-Hammond AP

Alexis Peristaltic **LDPE**

Site Name Latitude Longitude

00 0' 0" 00 0' 0" 444107

0.17 in Tubing Length 32 ft

Sonde SN Turbidity Make/Model Hanna

Pump placement from TOC

30 ft

Well Information:

Well ID Well diameter Well Total Depth Screen Length Depth to Water

HGWC-12 2 in 35.1 ft 10 ft 14.72 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.2328295 L Calculated Sample Rate 180 sec Stabilization Drawdown 0.48 in **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:39:05	180.03	20.61	7.15	1331.66	0.35	14.76	0.16	60.59
Last 5	13:42:05	360.02	20.35	7.15	1334.46	0.41	14.76	0.14	58.51
Last 5	13:45:05	540.02	20.30	7.16	1326.91	0.27	14.76	0.14	57.92
Last 5	13:48:05	720.02	20.26	7.15	1330.12	0.22	14.76	0.13	56.99
Last 5									
Variance 0			-0.27	0.00	2.80			-0.01	-2.08
Variance 1			-0.05	0.00	-7.55			-0.01	-0.59
Variance 2			-0.04	-0.00	3.21			-0.01	-0.94

Notes

Grab Samples HGWC-12

Sample time 1352

Date: 2016-05-23 15:14:07

Project Information:

Pump Information:

Operator Name Company Name Project Name Tracy Wardell ERM Hammond AP Pump Model/Type Tubing Type Tubing Diameter Alexis Peristaltic LDPE

Site Name
Latitude

Longitude

GPC-Plant Hammond-Hammond AP
0° 0' 0"
0° 0' 0"
444107

Tubing Diameter 0.17 in Tubing Length 42 ft

Sonde SN Turbidity Make/Model 444107 Hanna

Pump placement from TOC

40 ft

Well Information:

Well ID
Well diameter
Well Total Depth
Screen Length
Depth to Water

HGWC-13 2 in 44.6 ft 10 ft 18.5 ft Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2774638 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 5.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:59:58	360.02	20.53	7.14	979.74	4.86	18.60	0.16	-6.50
Last 5	15:02:58	540.02	20.57	7.14	981.51	6.19	18.60	0.15	-5.25
Last 5	15:05:58	720.02	20.42	7.14	982.48	1.90	18.60	0.15	-5.34
Last 5	15:08:58	900.02	20.44	7.14	982.15	1.50	18.60	0.14	-3.06
Last 5	15:11:58	1080.02	20.31	7.14	985.94	1.45	18.60	0.13	-5.46
Variance 0			-0.15	0.00	0.97			-0.00	-0.09
Variance 1			0.02	0.00	-0.33			-0.00	2.28
Variance 2			-0.13	0.00	3.79			-0.01	-2.40

Notes

Grab Samples HGWC-13 Sample time 1515

Date: 2016-05-23 12:26:29

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Will Virgo Company Name **ERM**

Project Name GPC - Hammond AP Site Name Hammond

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 450141

Turbidity Make/Model

Pump placement from TOC Hanna HI 98703

Well Information:

Well ID HGWC-14 Well diameter 2.00 in Well Total Depth 43 ft Screen Length 10.0 ft Depth to Water 24.24 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.410854 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.84 in **Total Volume Pumped** 7 L

Alexis Peristaltic V2.0

LDPE

45 ft

38 ft

0.17 in

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	12:03:14	900.02	22.22	4.48	3702.35	7.76	24.31	0.29	371.35
Last 5	12:08:14	1200.02	22.28	4.50	3667.64	3.58	24.31	0.27	354.79
Last 5	12:13:14	1500.02	22.36	4.53	3700.87	2.48	24.31	0.23	335.93
Last 5	12:18:14	1800.02	22.48	4.54	3675.91	1.74	24.31	0.17	326.14
Last 5	12:23:14	2100.02	22.36	4.56	3671.65	1.18	24.31	0.16	316.25
Variance 0			0.08	0.03	33.23			-0.04	-18.87
Variance 1			0.12	0.02	-24.96			-0.06	-9.78
Variance 2			-0.12	0.02	-4.27			-0.02	-9.90

Notes

Well parameters stable @ 1223.

Grab Samples HGWC-14

Sample Time 1228

Date: 2016-05-23 13:57:26

Project Information:

Operator Name Will Virgo Company Name **ERM**

Project Name GPC - Hammond AP Site Name Hammond

Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 450141

Turbidity Make/Model Hanna HI 98703

Well Information:

Well ID HGWC-15 Well diameter 2.00 in Well Total Depth 38 ft Screen Length 10.0 ft Depth to Water 15.81 ft

Pump Information:

Pump Model/Type Alexis Peristaltic V2.0

Tubing Type LDPE Tubing Diameter 0.17 in Tubing Length 40 ft

Pump placement from TOC

33 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.3885369 L Calculated Sample Rate 300 sec Stabilization Drawdown 11.52 in **Total Volume Pumped** 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	13:34:15	900.02	20.31	6.25	1554.97	3.88	16.75	0.89	196.93
Last 5	13:39:15	1200.02	19.82	6.21	1559.00	2.92	16.76	0.71	171.89
Last 5	13:44:16	1501.02	19.55	6.20	1565.98	2.91	16.76	0.63	158.45
Last 5	13:49:16	1801.02	19.77	6.18	1570.72	1.83	16.77	0.51	140.76
Last 5	13:54:16	2101.02	19.94	6.17	1569.70	1.83	16.77	0.49	136.38
Variance 0			-0.27	-0.01	6.98			-0.08	-13.44
Variance 1			0.22	-0.02	4.74			-0.11	-17.68
Variance 2			0.17	-0.01	-1.03			-0.02	-4.39

Notes

Purge started @13:19 @ 200 mL/min Well parameters stable @ 13:54. Sample rate 200 mL/min

Grab Samples HGWC-15

Sample Time: 13:59

Date: 2016-05-23 15:22:58

Project Information:

Operator Name Will Virgo Company Name ERM

Project Name GPC - Hammond AP
Site Name Hammond

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 450141

Turbidity Make/Model Hanna HI 98703

Well Information:

Well IDHGWC-16Well diameter2.00 inWell Total Depth33 ftScreen Length10.0 ftDepth to Water11.62 ft

Pump Information:

Pump Model/Type Alexis Peristaltic V2.0

Tubing TypeLDPETubing Diameter0.17 inTubing Length35 ft

Pump placement from TOC 28 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3662198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.8 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	15:00:08	600.02	21.30	7.13	896.07	3.39	12.22	0.68	-66.46
Last 5	15:05:08	900.02	20.13	7.15	854.96	3.75	12.23	0.15	-76.09
Last 5	15:10:08	1200.02	19.97	7.15	850.45	1.60	12.25	0.15	-76.78
Last 5	15:15:08	1500.02	19.96	7.15	852.23	2.65	12.26	0.13	-75.28
Last 5	15:20:08	1800.07	19.87	7.15	843.46	0.00	1227.00	0.13	-74.46
Variance 0			-0.16	0.00	-4.51			-0.00	-0.69
Variance 1			-0.01	-0.00	1.78			-0.01	1.49
Variance 2			-0.09	0.00	-8.77			0.00	0.82

Notes

Purge started @ 14:50. Purge Rate: 200 mL/min Well parameters stable @ 15:20. Sampled @ 200 mL/min

Grab Samples HGWC-16

Sample Time: 1525

Date: 2016-05-23 16:20:25

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Plant Hammond-AP
Site Name Plant Hammond

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449102
Turbidity Make/Model Hanna

Pump Information:

Pump Model/Type Alexis peristaltic

Tubing TypeLDPETubing Diameter.17 inTubing Length32 ft

Pump placement from TOC

22 ft

Well Information:

Well IDHGWC-17Well diameter2 inWell Total Depth27.8 ftScreen Length10 ftDepth to Water16.9 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3528295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 24.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	15:56:46	2404.02	20.01	6.40	1423.19	6.91	17.70	0.07	88.66
Last 5	16:01:46	2704.02	21.54	6.40	1420.83	5.99	17.52	0.11	88.85
Last 5	16:06:46	3004.02	21.65	6.40	1426.01	4.67	17.40	0.11	88.56
Last 5	16:11:46	3304.01	21.99	6.40	1421.79	4.58	17.40	0.10	89.13
Last 5	16:16:46	3604.01	21.84	6.40	1412.11	4.68	17.40	0.10	88.21
Variance 0			0.11	-0.00	5.18			-0.00	-0.29
Variance 1			0.35	-0.00	-4.22			-0.00	0.56
Variance 2			-0.16	0.00	-9.68			-0.00	-0.92

Notes

Within screen interval so purging 3 well volumes at 500ml/ min then decrease to 200 1st well volume at 1529. 2nd at 1543 3rd at 1556

Grab Samples HGWC-17

Date: 2016-05-24 10:25:21

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name Plant Hammond-AP
Site Name Plant Hammond

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449102
Turbidity Make/Model Hanna

Pump placement from TOC

Well Information:

Well ID HGWA-18
Well diameter 2 in
Well Total Depth 27.7 ft
Screen Length 10 ft
Depth to Water 16.67 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3528295 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.3 in
Total Volume Pumped 30.2 L

Alexis peristaltic

LDPE

.17 in

32 ft

22 ft

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μ S/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	09:57:09	4200.00	18.52	4.83	2020.74	6.00	16.90	0.14	197.21
Last 5	10:02:09	4500.00	18.63	4.81	2032.26	5.52	16.90	0.14	199.88
Last 5	10:07:09	4800.00	18.57	4.84	2022.27	3.89	16.90	0.15	196.84
Last 5	10:12:09	5100.00	18.79	4.83	2023.12	3.52	16.90	0.14	194.94
Last 5	10:17:09	5400.00	18.75	4.83	2025.36	3.11	16.90	0.14	196.56
Variance 0			-0.06	0.02	-9.99			0.02	-3.04
Variance 1			0.22	-0.00	0.84			-0.01	-1.90
Variance 2			-0.05	-0.00	2.25			-0.00	1.62

Notes

If WL drops .3inches will be one foot above screen and will purge 3 WV at 500ml/min. Then decrease back to 200ml/min Purged 3 WV at 500ml/min. 1st at 900 2nd at 914 3rd at 928

Grab Samples HGWC-18

Parameters stable

Date: 2016-08-30 12:47:38

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Markevious Thomas

Company Name ERM

Project Name Ash Ponds 1 & 2 Site Name GPC-Hammond

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 444108

Turbidity Make/Model HI 98703

Pump placement from TOC

27.6 ft

LDPE

.17 in

37 ft

Alexis Peristaltic

Well Information:

Well ID HGWA-1
Well diameter 2 in
Well Total Depth 32.5 ft
Screen Length 10 ft
Depth to Water 20.99 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2551467 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:10:18	1800.02	21.07	7.29	514.13	5.41	21.50	0.11	-22.19
Last 5	12:15:18	2100.02	21.28	7.28	516.10	5.22	21.50	0.11	-22.21
Last 5	12:20:18	2400.02	21.06	7.28	516.68	4.24	21.50	0.10	-18.71
Last 5	12:25:18	2699.99	21.31	7.27	524.23	4.54	21.50	0.10	-18.55
Last 5	12:30:18	2999.99	21.20	7.28	516.64	4.62	21.50	0.09	-16.66
Variance 0			-0.22	0.00	0.57			-0.01	3.50
Variance 1			0.25	-0.01	7.55			-0.00	0.16
Variance 2			-0.11	0.01	-7.59			-0.01	1.89

Notes

1140 purge started @200mL/min,1230 well parameters stable, 1235 well sampled @ 200mL/min

Grab Samples HGWA-1

.5gal, 1qt, 250ml

Date: 2016-08-30 13:40:17

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Rogers
Company Name ERM
Project Name AP 1&2

Site Name GPC- Hammond

Latitude 0° 0′ 0″

Longitude 0° 0′ 0″

Sonde SN 450141

Turbidity Make/Model Happa

Turbidity Make/Model Hanna Pump placement from TOC 22 ft

Well Information:

Well ID HGWA-2
Well diameter 2 in
Well Total Depth 27.9 ft
Screen Length 10 ft
Depth to Water 9.76 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.3439027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.11 in
Total Volume Pumped 4 L

Alexis peristaltic

LDPE

.17 in

30 ft

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:19:19	300.09	30.40	5.77	226.60	0.89	9.86	2.38	11.42
Last 5	13:24:19	600.02	26.21	5.66	228.56	2.54	9.87	0.31	36.64
Last 5	13:29:19	900.02	26.24	5.65	224.88	2.28	9.87	0.23	32.61
Last 5	13:34:19	1200.02	26.70	5.63	226.12	2.00	9.87	0.20	26.86
Last 5									
Variance 0			-4.19	-0.11	1.96			-2.06	25.21
Variance 1			0.03	-0.01	-3.68			-0.08	-4.03
Variance 2			0.46	-0.02	1.24			-0.03	-5.74

Notes

All parameters stable.

Grab Samples HGWA-2

Sampling at 1340 at 200ml/min

Date: 2016-08-30 14:37:31

Project Information:

Pump Information: Operator Name M. Rogers Pump Model/Type

Alexis peristaltic Company Name **LDPE** ERM **Tubing Type** Project Name Tubing Diameter .17 in AP 1&2 **GPC- Hammond** Tubing Length Site Name 46 ft

00 0' 0" Latitude 00 0' 0" Longitude Sonde SN 450141

Turbidity Make/Model Pump placement from TOC 39 ft Hanna

Pumping Information: Well Information:

Final Pumping Rate Well ID HGWA-3 200 mL/min Well diameter Total System Volume 0.4153174 L 2 in Calculated Sample Rate Well Total Depth 45.19 ft 300 sec Stabilization Drawdown Screen Length 10 ft 0.02 in Depth to Water 9.68 ft **Total Volume Pumped** 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:21:02	300.01	25.56	7.32	355.37	0.94	9.68	0.29	-117.09
Last 5	14:26:02	600.00	24.78	7.41	357.03	1.00	9.68	0.19	-119.51
Last 5	14:31:02	900.00	24.68	7.43	364.11	0.72	9.68	0.16	-119.47
Last 5	14:36:02	1200.00	24.81	7.43	367.67	0.88	9.68	0.13	-118.58
Last 5									
Variance 0			-0.77	0.09	1.66			-0.09	-2.43
Variance 1			-0.11	0.02	7.08			-0.04	0.04
Variance 2			0.13	-0.00	3.56			-0.02	0.89

Notes

All parameters stable

Grab Samples HGWA-3 Sampling at 1439 at 200ml/min

Date: 2016-08-30 14:37:20

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Markevious Thomas

Company Name ERM

Project Name Ash Ponds 1 & 2 Site Name GPC-Hammond

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 444108

Turbidity Make/Model HI 98703 Pump placeme

Pump placement from TOC 20.7 ft

Well Information:

Well ID HGWA-4
Well diameter 2 in
Well Total Depth 25.7 ft
Screen Length 10 ft
Depth to Water 10.37 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2239027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 in
Total Volume Pumped 7 L

Alexis Peristaltic

LDPE

.17 in

30 ft

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 100
Last 5	14:10:25	900.02	24.45	7.17	490.80	1.87	10.61	0.18	44.27
Last 5	14:15:25	1200.02	24.56	7.15	487.27	1.54	10.61	0.15	44.07
Last 5	14:20:25	1500.05	24.71	7.14	487.49	1.58	10.61	0.14	43.68
Last 5	14:25:25	1800.04	24.30	7.14	484.89	1.75	10.61	0.12	43.50
Last 5	14:30:25	2100.02	24.65	7.14	476.87	1.71	10.61	0.11	43.28
Variance 0			0.15	-0.01	0.22			-0.01	-0.39
Variance 1			-0.41	-0.01	-2.60			-0.01	-0.18
Variance 2			0.35	0.00	-8.03			-0.01	-0.22

Notes

1355 start purge @ 200mL/min, 1430 all parameters stable, 1435 sampled @ 200mL/min

Grab Samples HGWA-4 Sampled at 1435

Date: 2016-08-30 11:20:14

Project Information:

Pump Information: **Operator Name** Tracy Wardell Pump Model/Type

Alexis Peristaltic Company Name **ERM Tubing Type LDPE** Project Name Tubing Diameter 0.17 in AP 3 & 4 Tubing Length Site Name GPC - Hammond 30 ft

Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 444107

Turbidity Make/Model Pump placement from TOC Hanna 98703 22.5 ft

Pumping Information: Well Information:

Final Pumping Rate Well ID HGWA-5 250 mL/min Well diameter Total System Volume 2 in 0.2239027 L Calculated Sample Rate Well Total Depth 27.40 ft 180 sec Screen Length 10 ft Stabilization Drawdown 9.96 in Depth to Water 8.31 ft **Total Volume Pumped** 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	11:04:46	900.02	20.78	6.14	215.52	0.33	9.06	0.15	18.21
Last 5	11:07:46	1080.02	20.81	6.21	217.69	0.38	9.08	0.14	13.84
Last 5	11:10:46	1260.02	20.88	6.28	221.35	0.42	9.10	0.14	11.26
Last 5	11:13:46	1440.02	20.88	6.33	221.87	0.27	9.12	0.13	11.31
Last 5	11:16:46	1620.02	20.99	6.38	221.12	0.26	9.14	0.13	7.94
Variance 0			0.08	0.08	3.66			-0.00	-2.58
Variance 1			-0.00	0.04	0.53			-0.00	0.05
Variance 2			0.11	0.05	-0.75			-0.01	-3.37

Notes

Started pump at 1040

No issues. Started purge at 1040, delay just because of setting up first well of the day. Sample rate also 250 mL/min. File indicates AP 3/4 but should be for AP 1/2

Grab Samples HGWA-5 Sample time 11:21



Date: 2016-08-30 12:08:42

Project Information:

Operator Name Tracy Wardell

Company Name ERM
Project Name AP 1 & 2
Site Name GPC - Hammond

 Latitude
 0° 0' 0"

 Longitude
 0° 0' 0"

 Sonde SN
 444107

Turbidity Make/Model Hanna 98703

Well Information:

Well ID HGWA-6
Well diameter 2 in
Well Total Depth 50.00 ft
Screen Length 10 ft
Depth to Water 8.40 ft

Pump Information:

Pump Model/Type Alexis Peristaltic

45 ft

Tubing TypeLDPETubing Diameter0.17 inTubing Length52 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.322098 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 16.32 in
Total Volume Pumped 4.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	11:57:20	180.09	21.12	7.65	358.88	0.74	9.70	0.21	-124.97
Last 5	12:00:20	360.02	21.02	7.66	357.58	0.49	9.73	0.19	-124.00
Last 5	12:03:20	540.02	20.95	7.67	359.62	0.35	9.75	0.18	-126.04
Last 5	12:06:20	720.02	20.90	7.69	358.13	0.32	9.76	0.17	-125.37
Last 5									
Variance 0			-0.10	0.01	-1.30			-0.02	0.96
Variance 1			-0.07	0.02	2.03			-0.01	-2.03
Variance 2			-0.06	0.01	-1.49			-0.01	0.67

Notes

Started pump at 1149. No issues. Clear, no odor, sample rate also 250 mL/ min

Grab Samples HGWA-6

Sample time 1210

Date: 2016-09-01 09:23:28

Project Information:

Operator Name Markevious Thomas

Company Name ERM

Project Name Ash Ponds 1 & 2 Site Name GPC-Hammond

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 444108

Turbidity Make/Model HI 98703

Well Information:

Well ID HGWC-7
Well diameter 2 in
Well Total Depth 29.8 ft
Screen Length 10 ft
Depth to Water 5.11 ft

Pump Information:

Pump Model/Type Alexis Peristaltic

24.9 ft

Tubing TypeLDPETubing Diameter.17 inTubing Length35 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	08:55:24	300.08	22.49	7.16	704.10	4.64	5.21	0.32	21.09
Last 5	09:00:24	600.02	22.02	7.26	708.62	2.22	5.21	0.21	24.02
Last 5	09:05:24	900.01	21.87	7.28	705.92	1.83	5.22	0.16	21.10
Last 5	09:10:24	1200.01	21.73	7.29	709.45	1.53	5.22	0.15	21.11
Last 5	09:15:24	1500.01	21.73	7.29	707.64	1.04	5.22	0.13	19.00
Variance 0			-0.16	0.02	-2.70			-0.05	-2.92
Variance 1			-0.13	0.01	3.53			-0.02	0.01
Variance 2			-0.00	0.01	-1.81			-0.01	-2.11

Notes

0855 start purge@200mL/min, 0915 all parameters stable, 0920 sampled@200mL/min

Grab Samples

HGWC-7

Sampled at 0920; .5gal, 1qt, 250mL

DUP-1

Sampled at 0920; .5gal, 1qt, 250mL

2nd Rad

Sampled at 0920; .5gal

Date: 2016-09-01 08:47:16

Project Information:

Pump Information: Operator Name M. Rogers Pump Model/Type

Alexis peristaltic Company Name LDPE ERM **Tubing Type** Project Name Tubing Diameter .17 in AP 1&2 **GPC- Hammond** Tubing Length 27 ft Site Name

00 0' 0" Latitude 00 0' 0" Longitude Sonde SN 450141

Turbidity Make/Model Pump placement from TOC 20 ft Hanna

Pumping Information: Well Information:

Final Pumping Rate 200 mL/min Well ID HGWC-8 Well diameter Total System Volume 0.3305124 L 2 in Calculated Sample Rate Well Total Depth 24.7 ft 300 sec Stabilization Drawdown Screen Length 10 ft 0.01 in Depth to Water 4.19 ft **Total Volume Pumped** 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	08:30:54	300.11	22.02	6.61	994.20	1.66	4.20	0.24	98.55
Last 5	08:35:54	600.02	21.77	6.69	996.66	1.16	4.20	0.17	87.19
Last 5	08:40:54	900.02	21.65	6.72	1003.62	0.92	4.20	0.16	82.49
Last 5	08:45:54	1200.02	21.74	6.73	998.32	0.90	4.20	0.12	79.99
Last 5									
Variance 0			-0.25	0.08	2.45			-0.07	-11.35
Variance 1			-0.12	0.02	6.96			-0.01	-4.70
Variance 2			0.09	0.01	-5.30			-0.04	-2.51

Notes

All parameters stable

Grab Samples HGWC-8

Sampling at 0850 at 200ml/min

ERM					GROUNDWA	ATER SAMP	LING LOG	SHEET		
client: CIPC - Hammond AP 1+2 AP 1+					Pump Type/Model: Tubing Material: imp Intake Depth (ft): an/Stop Purge Time: Purge Rate (L/min) ² : al Purge Volume (L): Purge Method: Sampling Method:	Location Alexis LOPI ALS OPI2 A.C LOWFIOW We	2 /0928 00	.GA	_ Sample	Sampling Date: Sampler's Name: Tracy wardell Purge Rate (L/min) ³ : Sample ID: Laboratory Analyses: CL F, SCq, TMS Meta Rad 9 QA/QC Collected? QA/QC Collected? QA/QC I.D. F3-1
Well Bolted:					-		All sample contain			
Well Tag Present:		No	Water in Vault:	Yes NA	No	•	All sample contain	ers requiring chemica	preservation prop	erly preserved prior to demob from well? Yes No
Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (8)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H ₂ O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0919	20.49	1129.0	0.37	7.13	91.1	0.47	250	1.75	14.71	
0922	20-13	1152.7	0.24	7.14	50.1	0.43	250	2.50	14.71	
0925	20.15	1159.5	0.20	7.14	39.7	0.46	250	3.25	14.71	
0978	20.15	1158.9	0.17	7.15	30.9	0.41	250	4.00	14.71	
										for FB-1 @ 0921 poured DI water into containers, left lids off while purging + sampling
Stabilizing Criteria ^{4, 5} (1) - Maximum purge rate (2) - Sample rate to be be (3) - Collect sample from (4) - Field parameter mea (5) - Monitor depth to wat	tween 100 mL/min and a pump discharge without surements to be recorde pased on three most rec	tubing contacting same ed every 3 to 5 minutes ent consecutive measu	rements.	+/- 0.2 unit	wered as necessary to I	<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	Purge Log QA/QC'd By: Date: Purge Log QA/QC'd By: Date:

(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed

(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Date: 2016-09-01 10:15:53

Project Information:

Operator Name

M. Rogers

Pump Information:

Pump Model/Type

Operator NameM. RogersPump Model/TypeAlexis peristalticCompany NameERMTubing TypeLDPEProject NameAP 1&2Tubing Diameter.17 inSite NameGPC- HammondTubing Length24 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 450141

Turbidity Make/Model Hanna Pump placement from TOC 17 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-10 200 mL/min Well diameter Total System Volume 0.3171222 L 2 in Calculated Sample Rate Well Total Depth 22.6 ft 300 sec Stabilization Drawdown Screen Length 10 ft 0.04 in Depth to Water 14.82 ft **Total Volume Pumped** 17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:54:14	1200.02	20.49	6.53	959.43	1.30	14.90	0.05	81.43
Last 5	09:59:14	1500.02	20.40	6.53	955.26	1.54	14.90	0.04	80.39
Last 5	10:04:14	1800.02	20.39	6.53	977.98	0.94	14.90	0.06	80.23
Last 5	10:09:14	2100.02	22.20	6.54	962.47	0.48	14.87	0.11	86.14
Last 5	10:14:14	2400.02	22.44	6.54	955.89	0.52	14.86	0.11	86.80
Variance 0			-0.00	-0.00	22.72			0.02	-0.17
Variance 1			1.81	0.00	-15.51			0.05	5.92
Variance 2			0.24	0.00	-6.59			-0.00	0.66

Notes

All parameters stable. Had to purge 3 well volumes. 1st at 944, 2nd at 954 and 3rd at 1004

Grab Samples HGWC-10

Sampling at 1018 at 200ml/min

Date: 2016-09-01 10:46:35

Pumping Information:

Draidat Intarmat	ınn.
Project Informat	IOTI.

Pump Information: Tracy Wardell Pump Model/Type **Operator Name**

Alexis Peristaltic Company Name **ERM Tubing Type LDPE** Project Name Tubing Diameter 0.17 in AP 1 & 2 Tubing Length Site Name GPC - Hammond 28 ft

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 444107

Pump placement from TOC Turbidity Make/Model Hanna 98703 21 ft

Well Information:

Final Pumping Rate Well ID HGWC-11 500 mL/min Total System Volume Well diameter 0.2149758 L 2 in Well Total Depth 25.99 ft Calculated Sample Rate 180 sec Screen Length Stabilization Drawdown 1.68 in 10 ft Depth to Water 15.76 ft **Total Volume Pumped** 19.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	10:32:31	900.01	22.22	6.23	754.61	0.86	15.90	1.14	129.26
Last 5	10:35:31	1080.01	22.23	6.25	760.24	0.71	15.90	1.02	125.66
Last 5	10:38:31	1260.01	22.27	6.27	757.09	0.50	15.90	1.06	123.54
Last 5	10:41:31	1440.01	22.22	6.23	752.21	0.40	15.90	1.22	124.11
Last 5	10:44:31	1620.02	22.32	6.26	752.50	0.35	15.90	1.15	121.55
Variance 0			0.04	0.02	-3.15			0.04	-2.13
Variance 1			-0.04	-0.04	-4.88			0.16	0.57
Variance 2			0.09	0.03	0.29			-0.07	-2.56

Notes

3wv, so purging 500 ml/min. Will slow to 250 for sampling. Also provided depth is 22.6, however I know the well is 26, so that is what I'm using for calculations and tubing length, otherwise we're short.

No issues; clear, no odor. Slowed rate to 250 mL/min for sampling.



Date: 2016-09-01 11:32:55

Pump Information:

Project Information:

Operator Name Tracy Wardell Pump Model/Type

Alexis Peristaltic Company Name **ERM Tubing Type LDPE** Project Name Tubing Diameter 0.17 in AP 1 & 2 Tubing Length Site Name GPC - Hammond 37 ft

00 0' 0" Latitude 00 0' 0" Longitude Sonde SN 444107

Turbidity Make/Model Pump placement from TOC Hanna 98703 30 ft

Pumping Information: Well Information:

Final Pumping Rate Well ID HGWC-12 250 mL/min Well diameter Total System Volume 0.2551467 L 2 in Calculated Sample Rate Well Total Depth 34.95 ft 180 sec Stabilization Drawdown Screen Length 10 ft 0.36 in Depth to Water 15.85 ft **Total Volume Pumped** 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	11:21:38	180.08	21.74	7.19	1181.25	1.63	15.88	0.22	51.31
Last 5	11:24:38	360.02	21.73	7.20	1187.16	0.29	15.88	0.19	50.92
Last 5	11:27:38	540.02	21.80	7.19	1186.03	0.15	15.88	0.17	51.54
Last 5	11:30:38	720.02	21.75	7.20	1182.59	0.24	15.88	0.16	52.02
Last 5									
Variance 0			-0.02	0.01	5.91			-0.04	-0.39
Variance 1			0.07	-0.00	-1.13			-0.01	0.62
Variance 2			-0.05	0.01	-3.43			-0.01	0.47

Notes

Started pump at 1111 No issues; clear, no odor. Sample rate 250 mL/min

Grab Samples HGWC-12

Sample time 1134

Date: 2016-09-01 11:32:55

Project Information:

Operator Name Tracy Wardell Company Name **ERM** Project Name AP 1 & 2

Site Name GPC - Hammond

Latitude 00 0' 0" 00 0' 0" Lonaitude Sonde SN 444107

Turbidity Make/Model Hanna 98703

Well Information:

Well ID HGWC-12 Well diameter 2 in 34.95 ft Well Total Depth Screen Length 10 ft Depth to Water 15.85 ft

Pump Information:

Pump Model/Type Alexis Peristaltic

Tubing Type LDPE Tubing Diameter 0.17 in Tubing Length 37 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 250 mL/min Total System Volume 0.2551467 L Calculated Sample Rate 180 sec Stabilization Drawdown 0.36 in Total Volume Pumped

4.750 L ALR 9/1/16

30 ft

Low-Flow Sampling Stabilization Summary

LOW I IOW Out	npining otabiliza	tion ounning							
	Time	Elapsed	Temp C	рН	SpCond µS/cr	mTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	11:21:38	180.08	21.74	7.19	1181.25	1.63	15.88	0.22	51.31
Last 5	11:24:38	360.02	21.73	7.20	1187.16	0.29	15.88	0.19	50.92
Last 5	11:27:38	540.02	21.80	7.19	1186.03	0.15	15.88	0.17	51.54
Last 5	11:30:38	720.02	21.75	7.20	1182.59	0.24	15.88	0.16	52.02
Last 5									
Variance 0			-0.02	0.01	5.91			-0.04	-0.39
Variance 1			0.07	-0.00	-1.13			-0.01	0.62
Variance 2			-0.05	0.01	-3.43			-0.01	0.47

Notes

Started pump at 1111

No issues; clear, no odor. Sample rate 250 mL/min

Grab Samples HGWC-12

Sample time 1134

Date: 2016-09-01 11:18:52

Project Information:

Operator Name Markevious Thomas

Company Name

ERM Project Name Ash Ponds 1 & 2 Site Name GPC-Hammond

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 444108 HI 98703

Turbidity Make/Model

Well Information:

Well ID HGWC-13 Well diameter 2 in Well Total Depth 44.6 ft Screen Length 10 ft Depth to Water 17.65 ft

Pump Information:

Pump Model/Type Alexis Peristaltic

39.6 ft

Tubing Type LDPE Tubing Diameter .17 in Tubing Length 50 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.3131711 L Calculated Sample Rate 300 sec Stabilization Drawdown 1 in **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:55:30	300.05	25.78	7.25	883.43	2.59	17.75	0.49	-60.41
Last 5	11:00:30	600.02	24.49	7.24	914.11	4.00	17.75	0.24	-58.99
Last 5	11:05:30	900.02	24.81	7.23	929.52	2.45	17.75	0.21	-59.09
Last 5	11:10:30	1200.02	25.13	7.24	915.67	1.54	17.75	0.18	-56.84
Last 5	11:15:30	1500.02	25.24	7.24	908.65	2.01	17.75	0.16	-55.51
Variance 0			0.32	-0.01	15.41			-0.03	-0.10
Variance 1			0.32	0.01	-13.84			-0.03	2.25
Variance 2			0.11	0.00	-7.02			-0.02	1.33

Notes

1050 start purge@200mL/min, 1115 all parameters stable, 1120 sampled @200mL/min

Grab Samples HGWC-13

Sampled at 1120

Date: 2016-09-01 12:03:54

Alexis peristaltic

Project Information:

Pump Information: Operator Name M. Rogers Pump Model/Type

Company Name LDPE ERM **Tubing Type** Project Name Tubing Diameter .17 in AP 1&2 **GPC- Hammond** Tubing Length Site Name 45 ft

00 0' 0" Latitude 00 0' 0" Longitude Sonde SN 450141

Turbidity Make/Model Pump placement from TOC 38 ft Hanna

Pumping Information: Well Information:

Final Pumping Rate 200 mL/min Well ID HGWC-14 Well diameter Total System Volume 0.410854 L 2 in Calculated Sample Rate Well Total Depth 43 ft 300 sec Stabilization Drawdown Screen Length 10 ft 0.03 in Depth to Water 24.97 ft **Total Volume Pumped** 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:47:45	300.05	24.75	4.56	3240.72	6.24	24.97	0.40	256.48
Last 5	11:52:45	600.02	24.33	4.54	3231.83	3.14	25.00	0.25	252.82
Last 5	11:57:45	900.02	24.35	4.54	3234.17	3.83	25.00	0.21	248.63
Last 5	12:02:45	1200.02	24.60	4.54	3221.25	1.71	25.00	0.19	245.66
Last 5									
Variance 0			-0.43	-0.03	-8.89			-0.15	-3.66
Variance 1			0.02	0.00	2.33			-0.04	-4.19
Variance 2			0.26	-0.00	-12.92			-0.02	-2.98

Notes

All parameters stable

Grab Samples HGWC-10

Sampling at 1207 at 20ml/min

Date: 2016-09-01 12:03:54

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Rogers
Company Name ERM
Project Name AP 1&2

Site Name GPC- Hammond

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 450141
Turbidity Make/Model Hanna

a Pump placement from TOC

Well Information:

Well ID HGWC-14
Well diameter 2 in
Well Total Depth 43 ft
Screen Length 10 ft
Depth to Water 24.97 ft

Pumping Information:
Final Pumping Rate
Total System Volume

Calculated Sample Rate Stabilization Drawdown Total Volume Pumped 200 mL/min 0.410854 L 300 sec

Alexis peristaltic

LDPE

.17 in

45 ft

38 ft

4UL 0.03 in Ft/0.36 in

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:47:45	300.05	24.75	4.56	3240.72	6.24	24.97	0.40	256.48
Last 5	11:52:45	600.02	24.33	4.54	3231.83	3.14	25.00	0.25	252.82
Last 5	11:57:45	900.02	24.35	4.54	3234.17	3.83	25.00	0.21	248.63
Last 5	12:02:45	1200.02	24.60	4.54	3221.25	1.71	25.00	0.19	245.66
Last 5									
Variance 0			-0.43	-0.03	-8.89			-0.15	-3.66
Variance 1			0.02	0.00	2.33			-0.04	-4.19
Variance 2			0.26	-0.00	-12.92			-0.02	-2.98

Notes

All parameters stable

Grab Samples Augulic
HGWC-Dail4

Sampling at 1207 at 20ml/min

200 ml/min ALR 9/1/16

Date: 2016-09-01 12:56:28

Project Information:

Pump Information: **Operator Name** Tracy Wardell Pump Model/Type

Alexis Peristaltic Company Name **ERM Tubing Type LDPE** Project Name Tubing Diameter AP 1 & 2 0.17 in Tubing Length Site Name GPC - Hammond 41 ft

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 444107

Pump placement from TOC Turbidity Make/Model Hanna 98703 33 ft

Pumping Information: Well Information:

Final Pumping Rate Well ID HGWC-15 250 mL/min Total System Volume 0.2730004 L Well diameter 2 in Calculated Sample Rate Well Total Depth 38.0 ft 180 sec Screen Length Stabilization Drawdown 10.56 in 10 ft Depth to Water 17.36 ft **Total Volume Pumped** 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed Temp C pH		SpCond µS/	SpCond µS/cmTurb NTU		RDO mg/L	ORP mV	
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:40:56	359.98	21.32	6.48	1475.84	0.59	18.21	0.18	100.81
Last 5	12:43:56	539.98	21.19	6.41	1456.00	0.63	18.22	0.18	110.26
Last 5	12:46:56	719.97	21.12	6.30	1461.18	0.45	18.23	0.18	119.68
Last 5	12:49:56	899.98	21.19	6.23	1456.83	0.45	18.24	0.16	125.27
Last 5	12:52:56	1079.98	21.11	6.22	1464.95	0.41	18.24	0.17	125.08
Variance 0			-0.07	-0.11	5.18			0.00	9.42
Variance 1			0.08	-0.07	-4.35			-0.02	5.59
Variance 2			-0.08	-0.01	8.12			0.01	-0.19

Notes

Started pump at 1228

No issues; clear, no odor. Sample rate 250mL/min. Poured FB-2 here. DI water into bottles. Left lids off bottles while purging and sampling.

Grab Samples

HGWC-15

Sample time 1258

FB-2

Sample time 1218

Date: 2016-09-01 12:52:29

Pump Information:

Pump Model/Type

Tubing Diameter

Pump placement from TOC

Tubing Length

Tubing Type

Alexis Peristaltic

LDPE

.17 in

38 ft

28 ft

Project Information:

Operator Name Markevious Thomas

Company Name ERM

Project Name Ash Ponds 1 & 2 Site Name GPC-Hammond Latitude 00 0' 0"

00 0' 0" Longitude Sonde SN 444108

Turbidity Make/Model HI 98703

Pumping Information: Well Information:

Final Pumping Rate Well ID HGWC-16 200 mL/min Well diameter Total System Volume 0.2596101 L 2 in Well Total Depth 33.0 ft Calculated Sample Rate 300 sec Screen Length 10 ft Stabilization Drawdown 11 in **Total Volume Pumped** 5 L

Depth to Water 12.15 ft

Low-Flow Sampling Stabilization Summary

LOW 1 10W OC	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:25:33	300.08	26.11	7.31	896.72	0.48	12.85	0.48	-53.62
Last 5	12:30:33	600.02	24.24	7.29	914.34	0.97	12.92	0.26	-60.26
Last 5	12:35:33	900.02	23.88	7.28	911.61	0.64	12.97	0.19	-62.57
Last 5	12:40:33	1200.02	23.75	7.29	902.02	0.51	12.97	0.16	-63.92
Last 5	12:45:33	1500.02	22.85	7.29	898.09	1.70	12.97	0.14	-62.49
Variance 0			-0.36	-0.00	-2.73			-0.07	-2.31
Variance 1			-0.13	0.00	-9.59			-0.03	-1.36
Variance 2			-0.90	0.00	-3.93			-0.02	1.43

Notes

1220 start purge@200mL/min, 1245 all parameters stable, 1250 sampled@200mL/min

Grab Samples HGWC-16

Sampled at 1250

Date: 2016-09-01 14:54:40

Project Information:
Operator Name
Markevious Thomas

Company Name ERM
Project Name Ash Ponds 1 & 2
Site Name GPC-Hammond

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 444108

Turbidity Make/Model HI 98703

Pump Information:

Pump Model/Type Alexis Peristaltic

Tubing TypeLDPETubing Diameter.17 inTubing Length33 ft

Pump placement from TOC 23 ft

Well Information:

Well ID HGWC-17
Well diameter 2 in
Well Total Depth 27.8 ft
Screen Length 10 ft
Depth to Water 17.00 ft

Pumping Information:

Final Pumping Rate 500 mL/min
Total System Volume 0.237293 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10 in
Total Volume Pumped 24 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:20:01	1800.04	21.11	6.36	1346.17	2.72	17.79	0.08	79.15
Last 5	14:25:01	2100.04	21.08	6.36	1349.12	2.07	17.80	0.08	77.57
Last 5	14:30:01	2400.04	21.20	6.36	1350.19	1.58	17.80	0.09	76.39
Last 5	14:35:01	2700.04	21.06	6.36	1350.17	1.31	17.80	0.09	75.43
Last 5	14:40:01	3000.04	20.92	6.35	1350.76	1.79	17.80	0.09	74.49
Variance 0			0.12	0.00	1.07			0.01	-1.18
Variance 1			-0.13	-0.01	-0.02			-0.00	-0.96
Variance 2			-0.14	-0.01	0.59			-0.00	-0.94

Notes

1350 start purge@250mL/min, 1400 increase purge rate to 400mL/min, 1405 all parameters stable,1410 increase purge rate to 500mL/min, 1440 decrease purge rate to 250mL/min 1445 sampled @250mL/min

Grab Samples HGWC-17

Sampled at 1445

Date: 2016-09-01 14:29:34

Pump Information:

Pump Model/Type

Tubing Diameter

Pump placement from TOC

Pumping Information:

Tubing Length

Tubing Type

Alexis peristaltic

LDPE

.17 in

30 ft

22 ft

Project Information:

Operator Name M. Rogers
Company Name ERM

Project Name AP 1&2 Site Name GPC- Hammond

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 450141

Turbidity Make/Model Hanna

Well Information:

Final Pumping Rate Well ID HGWC-18 200 mL/min Well diameter Total System Volume 2 in 0.3439027 L Well Total Depth 27.7 ft Calculated Sample Rate 300 sec Screen Length 10 ft Stabilization Drawdown 2.33 in Depth to Water 16.77 ft **Total Volume Pumped** 23 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed Temp C	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:07:39	2100.02	22.68	4.50	2166.30	4.41	17.11	0.08	268.42
Last 5	14:12:39	2400.02	22.80	4.51	2173.48	5.74	17.11	0.08	269.14
Last 5	14:17:39	2700.01	22.85	4.50	2225.61	4.49	17.10	0.08	264.62
Last 5	14:22:39	3000.02	24.42	4.50	2186.50	4.12	17.00	0.10	261.55
Last 5	14:27:39	3299.98	24.55	4.51	2155.09	3.61	17.00	0.12	265.77
Variance 0			0.05	-0.01	52.13			0.00	-4.52
Variance 1			1.57	0.01	-39.10			0.02	-3.07
Variance 2			0.13	0.01	-31.41			0.02	4.22

Notes

Purging 3 well volumes

All parameters stable. Purged 3 well volumes. Will be taking an extra 1/2 gallon radium sample here

Grab Samples HGWC-18

Sampling at 1432 at 200 ml/min

Date: 2016-10-19 11:37:17

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Andreas Shoredits

Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2

Latitude 34º 15' 29.61" -850 -20' -38.32" Longitude

Sonde SN 364455

Turbidity Make/Model LaMotte 2020we Pump placement from TOC

27 ft

Alexis Peristaltic

LDPE

34 ft

0.25 in

Well Information:

Well ID HGWA-1 Well diameter 2.00 in Well Total Depth 32.6 ft Screen Length 10 ft Depth to Water 21.95 ft

Pumping Information:

Final Pumping Rate 400 mL/min Total System Volume 0.8131928 L Calculated Sample Rate 300 sec Stabilization Drawdown 10.2 in **Total Volume Pumped** 22 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:46:47	3000.02	19.29	7.02	546.18	0.89	22.79	0.23	-1.70
Last 5	10:51:47	3300.02	18.99	7.03	550.66	0.77	22.75	0.29	-2.96
Last 5	10:56:47	3599.98	20.37	7.00	556.34	0.80	22.65	0.25	-6.38
Last 5	11:01:47	3899.98	19.13	7.02	558.60	0.77	22.80	0.21	-5.82
Last 5	11:06:47	4199.98	19.73	7.02	568.55	0.63	22.70	0.23	-4.86
Variance 0			1.38	-0.02	5.68			-0.04	-3.43
Variance 1			-1.25	0.02	2.26			-0.04	0.56
Variance 2			0.60	-0.00	9.95			0.02	0.96

Notes

Parameters stable after three consecutive readings with turbidity < 5 NTU; Three well volume purge method used as water level is within screened interval; Initial purge rate of 100 ml/min increased to 300 ml/min @ 10:01, to 400 ml/min @ 10:16, and lowered to 200 ml/min @ 10:51 after three volume removal; Sample time is 11:15 sampled at 200 ml/min

Grab Samples HGWA-1 Groundwater sample

Date: 2016-10-19 13:57:56

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Andreas Shoredits

Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2

Latitude 34º 15' 15.19"

-85° -20' -59.65" Longitude

Sonde SN 364455

Turbidity Make/Model LaMotte 2020we

Pump placement from TOC

Well Information:

Well ID HGWA-2 Well diameter 2.00 in Well Total Depth 27.9 ft Screen Length 10 ft Depth to Water

10.28 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.7552765 L Calculated Sample Rate 300 sec Stabilization Drawdown 1.1 in **Total Volume Pumped** 9 L

Dedicated Bladder Pump

LDPE

28 ft

22 ft

0.25 in

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:48:39	900.02	23.50	5.61	216.28	2.70	10.36	0.60	58.54
Last 5	13:03:39	1800.02	22.96	5.51	207.11	0.51	10.36	0.33	59.08
Last 5	13:08:39	2100.10	24.15	5.50	203.21	0.56	10.35	0.29	59.75
Last 5	13:13:39	2400.01	23.27	5.48	204.82	0.53	10.36	0.21	61.35
Last 5	13:18:39	2700.02	22.27	5.46	204.83	0.56	10.37	0.16	61.29
Variance 0			1.18	-0.01	-3.90			-0.04	0.67
Variance 1			-0.87	-0.02	1.61			-0.09	1.59
Variance 2			-1.01	-0.01	0.02			-0.05	-0.05

Notes

Parameter stable after three consecutive readings and turbidity < 5 NTU; Purge rate remained constant at 200 ml/min; Start purge at 12:33 and stop at13:18; No readings at 12:38, 12:53, and 12:58 due to faulty instrumentation; Sample time is 13:25 at a sample rate of 200 ml/min

Grab Samples

Date: 2016-10-19 15:25:38

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Andreas Shoredits

Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2

Latitude 34º 15' 15.27"

-85° -20' -59.53" Longitude

Sonde SN 364455

Turbidity Make/Model LaMotte 2020we Pump placement from TOC

39 ft

Dedicated Bladder Pump

LDPE

45 ft

0.25 in

Well Information:

Well ID HGWA-3 Well diameter 2.00 in Well Total Depth 44.6 ft Screen Length 10 ft Depth to Water 10.17 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.9193729 L Calculated Sample Rate 300 sec Stabilization Drawdown 0 in **Total Volume Pumped** 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:44:16	900.02	21.31	7.05	379.12	1.33	10.17	0.18	-78.83
Last 5	14:49:16	1200.02	20.94	7.04	397.81	0.88	10.17	0.16	-83.26
Last 5	14:54:16	1500.01	20.64	7.03	413.18	0.66	10.17	0.13	-86.16
Last 5	14:59:16	1800.02	20.55	7.03	422.04	0.56	10.17	0.12	-90.16
Last 5	15:04:16	2099.99	20.65	7.03	428.00	0.57	10.17	0.12	-95.64
Variance 0			-0.30	-0.01	15.37			-0.03	-2.90
Variance 1			-0.09	-0.00	8.87			-0.01	-4.00
Variance 2			0.10	-0.01	5.96			-0.00	-5.48

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Constant purge rate maintained @ 200 ml/min with no drawdown; Sulfurous odor to water; Sample time is 15:10 at a sample rate of 200 ml/min; Specific conductivity jumped after purging 4 L

Grab Samples HGWA-3

Groundwater sample

Date: 2016-10-19 15:22:06

Project Information:

Operator Name M. Rogers Company Name **ERM**

Project Name **GPC- Plant Hammond** Site Name AP 1&2

00 0' 0" Latitude Longitude 00 0' 0" Sonde SN 449622

Turbidity Make/Model Lamotte 2020we

Well Information:

Well ID HGWA-4 Well diameter 2 in Well Total Depth 25.7 ft Screen Length 10 ft Depth to Water 11.00 ft

Pump Information:

Pump Model/Type Geotech Bladder pump

20 ft

Tubing Type **LDPE** Tubing Diameter .25 in Tubing Length 25 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.7263182 L Calculated Sample Rate 300 sec Stabilization Drawdown 3 in **Total Volume Pumped** 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Elapsed Temp C pH SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV		
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	14:59:50	1800.05	22.43	7.09	474.28	6.87	11.30	0.08	35.38
Last 5	15:04:50	2100.04	22.45	7.09	474.94	6.15	11.30	0.08	39.74
Last 5	15:09:50	2400.04	22.36	7.09	473.88	4.84	11.30	0.08	43.11
Last 5	15:14:50	2700.04	22.54	7.09	473.22	4.81	11.30	0.08	45.74
Last 5	15:19:50	3000.04	22.45	7.08	474.32	3.76	11.30	0.08	48.81
Variance 0			-0.09	0.01	-1.06			0.00	3.37
Variance 1			0.18	-0.01	-0.66			0.00	2.62
Variance 2			-0.09	-0.00	1.10			0.00	3.07

Notes

Parameters stable

Grab Samples HGWA-4 Sampling at 1522

Date: 2016-10-20 11:07:31

Project Information:

Operator Name Tracy Wardell

Company Name **ERM**

Project Name GPC - Plant Hammond Site Name AP 1&2 Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 457516

Turbidity Make/Model

LaMotte 2020we

Well Information:

Well ID HGWA-5 Well diameter 2 in Well Total Depth 27.4 ft Screen Length 10 ft Depth to Water 8.34 ft

Pump Information:

Pump Model/Type **QED Dedicated Bladder**

Tubing Type PTFE-lined LDPE

Tubing Diameter 0.17 in Tubing Length 29 ft

Pump placement from TOC 22.4 ft

Pumping Information:

Final Pumping Rate 240 mL/min Total System Volume 0.6144392 L Calculated Sample Rate 180 sec Stabilization Drawdown 9.6 in **Total Volume Pumped** 17.52 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	10:53:21	3420.00	19.81	6.50	209.94	6.17	9.14	0.14	10.46
Last 5	10:56:21	3600.00	19.81	6.51	211.64	5.85	9.14	0.13	9.10
Last 5	10:59:21	3780.00	19.89	6.52	213.34	4.97	9.14	0.13	7.78
Last 5	11:02:21	3960.00	19.89	6.52	211.72	4.82	9.14	0.13	9.33
Last 5	11:05:21	4140.00	19.90	6.52	213.20	4.71	9.14	0.12	8.75
Variance 0			0.07	0.01	1.69			-0.00	-1.32
Variance 1			0.00	0.00	-1.61			-0.00	1.55
Variance 2			0.01	-0.00	1.48			-0.00	-0.58

Notes

Started purge at 0949

Sample rate 240mL/min; clear, no odor; initially cloudy but eventually cleared. 15psi, ref12.5, dis 2.5

Grab Samples

Date: 2016-10-20 13:06:55

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Tracy Wardell

Company Name **ERM**

Project Name GPC - Plant Hammond Site Name AP 1&2 Latitude 00 0' 0"

00 0' 0" Longitude Sonde SN 457516

Turbidity Make/Model LaMotte 2020we Pump placement from TOC

Well Information:

Well ID HGWA-6 Well diameter 2 in Well Total Depth 50.0 ft Screen Length 10 ft Depth to Water 8.53 ft

Pumping Information:

Final Pumping Rate 250 mL/min Total System Volume 0.7037078 L Calculated Sample Rate 180 sec Stabilization Drawdown 20.64 in **Total Volume Pumped** 24 L

QED Dedicated Bladder

PTFE-lined LDPE

0.17 in

49 ft

45 ft

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:51:39	3780.00	19.14	7.42	355.23	5.34	10.25	0.09	-114.36
Last 5	12:54:39	3960.00	19.17	7.42	355.10	5.26	10.25	0.09	-114.80
Last 5	12:57:39	4140.00	19.10	7.43	355.30	4.98	10.25	0.09	-115.23
Last 5	13:00:39	4320.00	19.18	7.43	354.94	4.82	10.25	0.09	-115.84
Last 5	13:03:39	4500.00	19.15	7.43	355.56	4.96	10.25	0.09	-116.08
Variance 0			-0.06	0.00	0.20			0.00	-0.43
Variance 1			0.08	0.00	-0.36			-0.00	-0.61
Variance 2			-0.04	0.00	0.62			0.00	-0.25

Notes

Started purge at 11:27. Attempt #2 after hitting the end low flow icon Sample rate 250 mL/min; Clear, no odor. Excruciatingly slow turbidity drop. 24PSI, 10 ref, 5 dis

Grab Samples HGWA-6 Sample time 1308

Date: 2016-10-20 12:42:02

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Andreas Shoredits

Company Name

Project Name GPC - Plant Hammond

Site Name AP 1&2

Latitude 34° 15' 30.77" Longitude -85° -20' -31.64"

Sonde SN 364455

Turbidity Make/Model LaMotte 2020we

Pump placement f

Pump placement from TOC

Dedicated Bladder

LDPE

27 ft

24 ft

0.25 in

Well Information: Pumping Information:

ERM

Well ID HGWC-7
Well diameter 2.00 in
Well Total Depth 29.8 ft
Screen Length 10 ft
Depth to Water 4.94 ft

Final Pumping Rate 200 mL/min
Total System Volume 0.7456238 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 4.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:09:46	600.03	22.21	7.19	689.67	1.10	5.00	0.64	46.46
Last 5	12:14:46	900.02	21.93	7.15	694.45	1.59	5.00	0.26	45.24
Last 5	12:19:46	1200.02	21.93	7.13	693.76	1.50	5.01	0.19	42.34
Last 5	12:24:46	1500.01	22.02	7.10	694.20	1.03	5.01	0.17	41.35
Last 5									
Variance 0			-0.28	-0.05	4.78			-0.38	-1.22
Variance 1			0.01	-0.02	-0.69			-0.07	-2.89
Variance 2			0.09	-0.02	0.44			-0.02	-1.00

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Purge start 11:59, purge stop 12:24; Initial purge rate of 180 ml/min increased to 200 ml/min @ 12:04; First reading @ 12:04 not taken due to Bluetooth connectivity problem; Sample time is 12:30 @ a rate of 200

Grab Samples HGWC-7

Groundwater sample

Date: 2016-10-20 14:14:39

Dedicated Bladder

24 ft

Project Information:

Operator Name

Andreas Shoredits

Pump Information:

Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter0.25 in

Site Name AP 1&2 Tubing Diameter
Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 364455

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 19 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-8 250 mL/min Total System Volume Well diameter 0.7166655 L 2.00 in Calculated Sample Rate Well Total Depth 24.91 ft 300 sec Screen Length Stabilization Drawdown 0.36 in 10 ft Depth to Water 4.33 ft **Total Volume Pumped** 5.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:30:28	300.09	22.90	7.19	1027.08	0.51	4.36	1.43	102.26
Last 5	13:35:28	600.02	23.18	6.98	1040.40	0.52	4.36	0.34	84.48
Last 5	13:40:28	900.02	22.71	6.93	1042.68	0.43	4.35	0.28	79.17
Last 5	13:45:28	1200.02	21.99	6.90	1044.87	0.49	4.35	0.22	74.46
Last 5	13:50:28	1500.02	22.22	6.90	1044.43	0.48	4.35	0.18	72.33
Variance 0			-0.47	-0.06	2.29			-0.07	-5.32
Variance 1			-0.72	-0.02	2.19			-0.06	-4.71
Variance 2			0.22	-0.01	-0.44			-0.03	-2.13

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Purge start @ 13:25, and purge stop @ 13:50; Initial purge rate of 250 ml/min decreased to 200 ml/min @ 13:30, increased to 250 ml/min @ 13:40; Sample time is 13:55 at a sample rate of 200 ml/min; DUP-1

Grab Samples
HGWC-8
Groundwater sample
DUP-1
Duplicate groundwater sample

Date: 2016-10-20 16:02:26

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:
Operator Name
And

Andreas Shoredits

Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455

Turbidity Make/Model LaMotte 2020we

Pump placement from TOC

41 ft

LDPE

46 ft

0.25 in

Dedicated Bladder

Well Information:

Well IDHGWC-9Well diameter2.00 inWell Total Depth46.6 ftScreen Length10 ftDepth to Water16.36 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9290257 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.12 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	15:26:40	900.02	20.87	7.08	1209.45	1.47	16.37	0.80	39.95
Last 5	15:31:40	1200.02	20.67	7.06	1213.90	1.59	16.37	0.61	40.49
Last 5	15:36:40	1500.02	20.55	7.05	1215.66	1.38	16.37	0.48	41.01
Last 5	15:41:40	1800.02	20.48	7.05	1214.14	1.43	16.37	0.38	37.14
Last 5	15:46:40	2100.00	20.35	7.05	1213.65	0.93	16.37	0.32	34.30
Variance 0			-0.12	-0.01	1.77			-0.12	0.52
Variance 1			-0.07	-0.00	-1.52			-0.10	-3.87
Variance 2			-0.13	-0.00	-0.49			-0.06	-2.84

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Start purge @ 15:11, and stop purge @ 15:46; Purge rate maintained @ 200 ml/min; Sample time is 15:50 with a sample rate of 200 ml/min

Grab Samples HGWC-9

Groundwater sample

Date: 2016-10-24 13:38:32

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.25 in
Site Name	AP 1&2	Tubing Length	25 ft
Latitude	00 0' 0"		
Longitude	00 0' 0"		

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 17 ft

Well Information:

Well ID

HGWC-10

Pumping Information:

Final Pumping Rate

449622

200 mL/min Well diameter Total System Volume 0.4613183 L 2.00 in Well Total Depth Calculated Sample Rate 22.6 ft 300 sec Screen Length Stabilization Drawdown 0.36 in 10 ft Depth to Water 16.93 ft **Total Volume Pumped** 13.5 L

Low-Flow Sampling Stabilization Summary
Time Elapsed

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:41:19	1499.99	21.20	6.59	1059.14	0.71	16.96	0.12	77.41
Last 5	12:46:19	1800.00	20.89	6.60	1053.90	0.60	16.96	0.09	78.73
Last 5	12:51:19	2100.05	21.37	6.60	1061.32	0.77	16.95	0.11	79.17
Last 5	12:56:19	2400.03	21.95	6.60	1052.12	0.67	16.94	0.08	79.28
Last 5	13:01:19	2700.00	22.28	6.59	1050.24	0.73	16.95	0.12	80.15
Variance 0			0.49	-0.00	7.42			0.02	0.44
Variance 1			0.58	0.00	-9.19			-0.02	0.11
Variance 2			0.32	-0.00	-1.88			0.04	0.87

Notes

Sonde SN

Parameters stable after three consecutive readings and turbidity < 5 NTU; Water level within screened zone and three volume purge conducted; Purge start @ 12:15, purge stop @ 13:00; Initial purge rate of 200 ml/min increased to 300 ml/min @ 12:20, to 300 ml/min @ 12:25, to 400 ml/min @ 12:30; Purge rate lowered after third volume @ 12:45 to 200 ml/min; Sample time is 13:05 @ a rate of 200 ml/min; Measured TD is 22.70 ft

Grab Samples HGWC-10 Groundwater sample

Date: 2016-10-24 13:13:08

Project Information:

Operator Name

M. Rogers

Pump Information:

Pump Model/Type

Operator NameM. RogersPump Model/TypeAlexis peristalticCompany NameERMTubing TypeLDPEProject NameAP 1&2Tubing Diameter.17 inSite NamePlant Hammond AP 1&2Tubing Length24 ft

Latitude 0° 0' 0" Longitude 0° 0' 0" Sonde SN 364456

Turbidity Make/Model Lamotte 2020we Pump placement from TOC 19 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-11 500 mL/min Well diameter Total System Volume 2 in 0.3171222 L Calculated Sample Rate Well Total Depth 22.3 ft 300 sec Stabilization Drawdown Screen Length 10 ft 0.07 in Depth to Water 18.16 ft **Total Volume Pumped** 9.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:51:43	300.08	22.84	6.36	1139.09	7.23	18.25	0.35	91.13
Last 5	12:56:43	600.03	22.88	6.43	1160.99	4.21	18.28	0.20	71.48
Last 5	13:01:43	900.02	22.88	6.45	1164.94	0.85	18.28	0.18	58.32
Last 5	13:06:43	1200.02	23.97	6.52	1201.32	0.75	18.28	0.29	54.40
Last 5	13:11:43	1500.02	24.23	6.46	1173.56	0.97	18.23	0.22	55.61
Variance 0			0.00	0.02	3.95			-0.03	-13.16
Variance 1			1.08	0.08	36.39			0.11	-3.92
Variance 2			0.27	-0.06	-27.76			-0.07	1.21

Notes

Within screen so purging 3 well volumes. 2.5 liter volumes. Decrease purge rate to 200ml/min after 3rd All parameters stable

Grab Samples HGWC-11

Sampling at 1315

_											
							~	7			
						GROUNDWA	TER SAMP	LING LOG S	SHEET		
	ERM										15 34 11
	Client:		GPC				Project No.				Sampling Date: 10-24-16
7	Site:		HGWC-			_	Location		<u> </u>		Sampler's Name: MR
	Well ID:		APIN	2	_	Pump Type/Model:	Bladdo	<u> </u>			mple Collection Time: 1445
	Total Depth (fl) ¹ :		35.1		_	Tubing Material:	LDPE			Sample	Purge Rate (L/min)3: 300 L/min
	Depth to Water (ft):		1813	<u> </u>	Pu	mp Intake Depth (ft):	<u> 30 </u>				Sample ID: HGWC-13
ŀ	Well Diameter (in):			}	_	art/Stop Purge Time:	<u> 1415 </u>				Laboratory Analyses: CCoC
ŀ	Well Volume (gal) = 0.	041d ² h:	2.8 90	<u> </u>	-	Purge Rate (L/min)2:	<u>.200</u>	LIMIN			
ŀ	Well Volume (L) = gal	3.785:	10.616		_ Tot:	al Purge Volume (L):).
ŀ	d = well diameter (inch	es) h = length of wat	er column (feet)			Purge Method:	Low-Flow We	ell Volume Other	T		QA/QC Collected? V 5
١	Well Type:	Flush	Stick Up			Sampling Method:	Pathip Discharge	Other:			QA/QC I.D.
١	/Vell Lock:	Yes	No		. 1	'					
١	Well Bolted:	Yes	NO	Bolts Needed:	No.	-					
- [,	Well Cap Condition:	Geog	Replace	Other				All sample containe	rs requiring chemical p	reservation properl	ly preserved prior to demob from well? Yes No
	Well Tag Present:	(Yes	No	Water in Vault:	Yes 5	40					
-	Time	Temp.	Spec. Cond. (mS/cm) (µS/cm)	DO (%)	рН (SV)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H ₂ O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rale, issues with pump/well/weather/etc.)
ŀ	9= 1420	20.69	1249.3	0.32	7.10	158.4	79	200	1	18.30	
H	4 100		1251.4	0.37	71	2306	, 72	₹	T 2	1830	
-	17/22	26.71		045	7.1	72 27 11	1. 64	-	3	18.30	
H	1470		12456	0.90	_	384.7	.76		J J	18.30	
-	1435	31.00	00-100-1	10.01			.55		5	18.3	
-	1-1-10	<u> 26.85</u>	135>	6.34	7.10	\$33.00		1		10.)	
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+	Stabilizing		+/-	0.2 mg/L or 10%	+/-		-E MT11-	>100 mL	201	~0 22 St	
	Criteria ^{4, 5}		5%	whichover is greater	0.2 unit		<5 NTUs	< 250 mL	>3L	<0.33 ft	
) - Maximum purge rate o		50								Purge Log QA/QC'd By:
	2) - Sample rate to be bet 3) - Collect sample from pr			le container					^		Date:
(4) - Field parameter meas	urements to be recorded	d every 3 to 5 minutes.						(a)		Purso Log ON/OC'd Ru
	i) - Stabilization criteria ba i) - Monitor depth to water				mpling rate to be lower	ed as necessary to keep	drawdown below 0.3	i3 ft.	19 8 7		Purge Log QA/QC'd By: Date:
(7) - Contact field team lead	d if drawdown > 0.33 ft -	do not switch to 3 wel	ll volume method until in		,					
	i) - Preserve all samples a i) - DO 0.2 mg/L or 10% v							U	H		
12	., 200.2 mg/L 0/ 1074 Y	mountever to diseases (110	The state of the s					<i>U</i>			

Date: 2016-10-24 14:58:39

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Andreas Shoredits

Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2

Latitude 34º 15' 6.52"

Longitude -85° -20' -40.01"

Sonde SN 449622

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 39 ft

Well Information:

Well ID HGWC-13
Well diameter 2.00 in
Well Total Depth 44.6 ft
Screen Length 10 ft
Depth to Water 18.46 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9193729 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 5 L

Dedicated Bladder

LDPE

45 ft

0.25 in

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:15:46	300.03	23.25	7.06	997.50	1.57	18.48	1.71	70.77
Last 5	14:20:46	600.02	22.09	6.92	1046.27	2.14	18.48	0.60	61.60
Last 5	14:25:46	900.02	21.63	6.91	1048.74	1.48	18.48	0.50	50.51
Last 5	14:30:46	1200.01	21.51	6.91	1054.65	1.22	18.47	0.28	40.16
Last 5	14:35:46	1500.00	21.48	6.90	1056.29	1.27	18.47	0.21	28.98
Variance 0			-0.46	-0.02	2.47			-0.10	-11.09
Variance 1			-0.12	-0.00	5.91			-0.23	-10.35
Variance 2			-0.03	-0.01	1.64			-0.07	-11.18

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Start purge @ 14:10, stop purge @ 14:35; Initial purge rate of 200 ml/min maintained throughout; DO below 0.5 mg/L and continued dropping after final reading; Sample time is 14:45 at a sample rate of 200 ml/min

Grab Samples HGWC-13

Groundwater sample

Date: 2016-10-24 16:21:01

Pump Information:

Pump Model/Type

Project Information:

Operator Name Andreas Shoredits

Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2

Latitude 34° 15' 7.08" Longitude -85° -20' -40.14"

Sonde SN 449622

Turbidity Make/Model LaMotte 2020we

Tubing Type
Tubing Diameter
Tubing Length

Dedicated Bladder

LDPE 0.25 in 45 ft

Pump placement from TOC 38 ft

Well Information:

Well ID

HGWC-14

Pumping Information:

Final Pumping Rate

Well diameter 2.00 in
Well Total Depth 43.0 ft
Screen Length 10 ft
Depth to Water 25.93 ft

Final Pumping Rate
Total System Volume
Calculated Sample Rate
Stabilization Drawdown
Total Volume Pumped

200 mL/min 0.9193729 L 300 sec 0.36 in 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	15:45:40	300.03	22.97	4.95	3430.28	1.63	25.97	1.57	99.65
Last 5	15:50:40	600.02	22.63	4.69	3442.14	1.33	25.97	0.48	102.36
Last 5	15:55:40	900.02	22.58	4.64	3433.66	1.20	25.97	0.30	99.60
Last 5	16:00:40	1199.99	22.49	4.63	3426.97	1.16	25.97	0.25	100.36
Last 5	16:05:40	1499.99	22.49	4.63	3412.60	1.54	25.96	0.22	102.87
Variance 0			-0.04	-0.05	-8.48			-0.17	-2.75
Variance 1			-0.09	-0.01	-6.69			-0.05	0.76
Variance 2			0.00	-0.00	-14.37			-0.03	2.50

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Start purge @ 15:40, stop purge @ 16:05; Initial purge rate of 200 ml/min maintained throughout; Sample time is 16:10 at a sample rate of 200 ml/min

Grab Samples HGWC-14

Groundwater sample

Date: 2016-10-24 16:24:33

Pump Information:

Project Information:

Operator Name M. Rogers Pump Model/Type bladder Company Name ERM **Tubing Type** LDPE Project Name Tubing Diameter AP 1&2 in Plant Hammond AP 1&2 Tubing Length Site Name 38 ft

Turbidity Make/Model Lamotte 2020we Pump placement from TOC 33 ft

Well Information: Pumping Information:

Final Pumping Rate 200 mL/min Well ID HGWC-15 Well diameter Total System Volume 0.09 L 2 in Calculated Sample Rate Well Total Depth 38 ft 300 sec Stabilization Drawdown Screen Length 10 ft 9.6 in Depth to Water 19.1 ft **Total Volume Pumped** 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	16:08:01	300.02	20.07	6.01	1494.70	0.53	19.82	1.16	25.04
Last 5	16:13:01	600.02	20.05	5.97	1487.04	0.47	19.87	0.85	63.75
Last 5	16:18:01	900.02	20.20	5.98	1494.61	0.39	19.87	0.78	86.21
Last 5	16:23:01	1200.02	20.16	5.97	1499.42	0.33	19.87	0.72	105.04
Last 5									
Variance 0			-0.02	-0.04	-7.66			-0.31	38.71
Variance 1			0.15	0.01	7.57			-0.07	22.46
Variance 2			-0.04	-0.00	4.81			-0.06	18.83

Notes

Parameters stable

Grab Samples HGWC-15

Sampling at 1427

Date: 2016-10-25 11:58:46

Dedicated Bladder

Project Information:

Operator Name

Andreas Shoredits

Pump Information:

Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter0.25 inSite NameAP 1&2Tubing Length38 ft

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 28 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-16 200 mL/min Total System Volume Well diameter 0.8518038 L 2.00 in Calculated Sample Rate Well Total Depth 33 ft 300 sec Screen Length Stabilization Drawdown 10 ft 6.84 in Depth to Water 12.55 ft **Total Volume Pumped** 22 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:07:58	5399.98	19.86	7.03	874.16	5.30	13.09	0.12	-70.74
Last 5	11:12:58	5699.96	19.98	7.03	875.97	5.46	13.08	0.13	-71.10
Last 5	11:17:58	5999.96	20.05	7.04	875.93	4.85	13.08	0.13	-71.06
Last 5	11:22:58	6299.95	20.09	7.04	876.93	4.77	13.07	0.13	-71.05
Last 5	11:27:58	6599.96	20.22	7.03	876.34	4.59	13.06	0.16	-71.96
Variance 0			0.07	0.01	-0.03			-0.01	0.04
Variance 1			0.04	0.00	0.99			0.00	0.01
Variance 2			0.13	-0.01	-0.59			0.04	-0.91

Notes

Parameters are stable after three consecutive readings and turbidity < 5 NTU; Initial drawdown stabilized after purging around 2 L; Start purge @ 9:37, stop purge @ 11:27; Initial purge rate of 200 ml/min maintained throughout; Well water is turbid white with fine grained suspended particles; Turbidity > 10 NTU until 10:32 (11 L) and dropped to < 5 NTU @ 11:17 (20 L); Sample time is 11:35 at a sample rate of 200 ml/min

Grab Samples
HGWC-16
Groundwater sample
DUP-2
Groundwater sample duplicate

Date: 2016-10-25 12:33:43

Project Information:

Operator Name Tracy Wardell

Company Name ERM

Project Name GPC - Plant Hammond Site Name AP 1&2 Latitude 0° 0' 0" Longitude 0° 0' 0"

Longitude 0° 0' 0" Sonde SN 457516

Turbidity Make/Model LaMotte 2020we

Well Information:

Well ID HGWC-17
Well diameter 2 in
Well Total Depth 27.8 ft
Screen Length 10 ft
Depth to Water 17.14 ft

Pump Information:

Pump Model/Type QED Dedicated Bladder

23 ft

Tubing Type PTFE-lined LDPE

Tubing Diameter 0.25 in Tubing Length 26 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 430 mL/min
Total System Volume 0.735971 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.32 in
Total Volume Pumped 21.6 L

Low-Flow Sampling Stabilization Summary

Time		Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:10:13	1500.02	20.17	6.23	1290.11	4.28	17.71	0.16	65.90
Last 5	12:15:13	1800.02	20.15	6.23	1290.72	2.51	17.72	0.16	67.81
Last 5	12:20:13	2100.02	20.16	6.23	1289.70	2.02	17.73	0.16	69.91
Last 5	12:25:13	2400.02	20.15	6.23	1289.07	1.64	17.74	0.17	71.75
Last 5	12:30:13	2700.02	20.35	6.23	1289.64	1.36	17.75	0.18	73.27
Variance 0			0.01	-0.00	-1.02			0.01	2.09
Variance 1			-0.01	0.00	-0.63			0.01	1.85
Variance 2			0.19	0.00	0.57			0.01	1.51

Notes

Started purge at 1140

Sample rate 250 mL/min. Initially 15 psi for purging, lowered to 10 psi for sampling. Ref 12.5, dis 2.5. Clear, no odor; no issues.

Grab Samples HGWC-17

Sample time 1235

Date: 2016-10-25 12:26:39

Project Information:

Operator Name

M. Rogers

Pump Information:

Pump Model/Type

Operator NameM. RogersPump Model/TypebladderCompany NameERMTubing TypeLDPEProject NameAP 1&2Tubing DiameterinSite NamePlant Hammond AP 1&2Tubing Length28 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 364456

Turbidity Make/Model Lamotte 2020we Pump placement from TOC 22 ft

Well Information: Pumping Information:

Final Pumping Rate 500 mL/min Well ID HGWC-18 Well diameter Total System Volume 0.09 L 2 in Calculated Sample Rate Well Total Depth 27.7 ft 300 sec Stabilization Drawdown Screen Length 10 ft 3.3 in Depth to Water 16.81 ft **Total Volume Pumped** 24 L

Low-Flow Sampling Stabilization Summary

Time		Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:05:01	900.02	21.65	4.51	2243.42	4.98	17.18	0.13	162.20
Last 5	12:10:01	1200.02	21.67	4.51	2250.66	2.35	17.18	0.13	176.51
Last 5	12:15:01	1500.02	21.97	4.52	2250.68	1.32	17.15	0.12	182.94
Last 5	12:20:02	1800.81	21.94	4.54	2250.39	1.04	17.15	0.14	198.31
Last 5	12:25:02	2100.81	21.99	4.53	2254.63	1.03	17.15	0.13	196.47
Variance 0			0.30	0.02	0.02			-0.01	6.43
Variance 1			-0.03	0.01	-0.29			0.01	15.37
Variance 2			0.05	-0.00	4.23			-0.01	-1.84

Notes

Water level less than 1 ft above screen so purging 3 well volumes. Decrease purge rate to 200ml/min after third well volume Parameters stable

Grab Samples HGWC-18

Sampling at 1230

Date: 2016-12-06 10:17:52

Project Information:

Operator Name M. Rogers Company Name ERM

Project Name GPC - Plant Hammond Site Name Hammond - AP 1 & 2

 Latitude
 0° 0' 0"

 Longitude
 0° 0' 0"

 Sonde SN
 463068

Turbidity Make/Model Lamotte 2020we

Pump Information:

Pump Model/Type QED bladder

Tubing TypeLDPETubing Diameter.25 inTubing Length27 ft

Pump placement from TOC 0 ft

Well Information:

Well ID HGWA-1
Well diameter 2 in
Well Total Depth 32.6 ft
Screen Length 10 ft
Depth to Water 21.75 ft

Pumping Information:

Final Pumping Rate 500 mL/min
Total System Volume 0.7456238 L
Calculated Sample Rate 300 sec
Stabilization Drawdown
Total Volume Pumped 24.4 L

Low-Flow Sampling Stabilization Summary

Time		Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:56:09	2699.96	17.22	7.07	549.31	13.90	22.98	0.85	-3.06
Last 5	10:01:09	2999.96	17.23	7.07	551.17	5.26	22.74	0.79	-3.87
Last 5	10:06:09	3299.96	17.27	7.07	552.36	4.48	22.76	0.66	-4.54
Last 5	10:11:09	3599.96	17.22	7.08	551.13	2.58	22.80	0.57	-5.52
Last 5	10:16:09	3899.96	17.21	7.09	554.73	2.19	22.78	0.53	-6.38
Variance 0			0.03	0.00	1.19			-0.13	-0.67
Variance 1			-0.05	0.01	-1.23			-0.09	-0.98
Variance 2			-0.01	0.01	3.60			-0.04	-0.85

Notes

Purging 3 well volumes

Parameters stable. Purged 3 well volumes. Weather: raining cold

Grab Samples HGWA-1

Sampling at 1020

RM				G	ROUNDWA	TER SAMPL	ING LOG SI	HEET			
ent:			GPC			Project No.: _	0372	394		Sampling Date:	12-6-16
::		Plant Hammond -	AP1:2			Location:	Rinco	n, Ga		Sampler's Name:	M. Thomas
II ID:		H61014-2	2	F	Pump Type/Model:	Bladder	10ED		Samp	ple Collection Time:	1140
al Depth (ft) ¹ :		129			Tubing Material:	LOPE			Sample Pu	rge Rate (mL/min)3:	250
oth to Water (ft):		9.06		Pum	o Intake Depth (ft):	23				Sample ID:	46WA-2
Il Diameter (in):		1			/Stop Purge Time:	1110/115	15		L	aboratory Analyses:	Metals App. III & IV (EPA 6020/7470), CI, F, SO ₄ & TDS (EPA 30 & SM 2540C), Radium 226 & 228 (SW-846 9315/9320)
ell Volume (gal) = 0.	041d ² h:	3.09			ge Rate (mL/mln)²:						
ell Volume (L) = gal	* 3.785:	11.694		Total	Purge Volume (L):	1.75					
well diameter (inch	es) h = length of w	ater column (feet)			Purge Method:	Low-Flow Well	Volume Other:			QA/QC Collected?	No
ell Type:	Flush	Stick Up			Sampling Method:	Pump Discharge	Other:			QA/QC I.D.	
eli Lock:	Yes	No							18		
ell Bolted:	Yes	No	Bolts Needed:			-					
ell Cap Condition:	Good	Replace	Other				All sample containe	rs requiring chemical	preservation prope	rly preserved prior to	demob from well? Yes No
ell Tag Present:	Yes	No	Water in Vault:	Yes	No						
Time	Temp.	Spec. Cond. (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/mln)	Purged Volume (L)	H ₂ O Depth (ft btoc)	Notes (Purge m	ethod, water clarity, odor, purge rate, Isso with pump/well/weather/etc.)
11/5	10.43	196.50	0.18	5.45	59.40	3.63	250	1.25	920		
1120	20.48	190.90	0.16	5.40	60.20	4.89	250	1.25	9.20		
1125	20.12	133.50	0.15	5.39	63.20	2.83	250	175	9.20		
1130	20.42	133 90	0.19	5.39	63.90	2.65	250	1.25	9.20		
1135	20 46	128 60	011	5.39	64.80	1.56	150	1.25	9.20		
1140	20.47	179 20	0-14	5.57	65.80	1.30	150	1.25	9.60		
1145	20 46	123 h	6 14	5.38	66240	1.31	250	1.25	9.20		
77-2	10.70	17510	2.77		1000						
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					-			+	-	-	
Stabilizing Criteria ^{4, 5}		+/- 5%	0.2 mg/L or 10% whichever is greater (9)	+/- 0.1 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft		

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

Date: 2016-12-06 10:32:11

Project Information: Pump Information:

365491

Operator Name Markevious Thomas Pump Model/Type QED Bladder

Company Name ERM Tubing Type LDPE Project Name GPC - Plant Hammond Tubing Diameter .25 in Site Name Hammond - AP 1 & 2 Tubing Length 35 ft

Site Name Hammond - AP 1 & 2 Tubing Length
Latitude 0° 0' 0"
Longitude 0° 0' 0"

Turbidity Make/Model LaMotte2020we Pump placement from TOC 35 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWA-3 250 mL/min Total System Volume Well diameter 2 in 0.8228456 L 44.6 ft Calculated Sample Rate Well Total Depth 300 sec Screen Length 10 ft Stabilization Drawdown 0.5 in Depth to Water 9.00 ft **Total Volume Pumped** 6.25 L

Low-Flow Sampling Stabilization Summary

	Time		Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:55:02	300.14	18.43	6.95	396.13	0.84	9.04	0.24	-8.44
Last 5	10:00:02	600.02	18.67	7.00	411.50	1.04	9.04	0.17	-32.04
Last 5	10:05:02	900.02	18.70	7.04	414.91	1.27	9.04	0.14	-49.23
Last 5	10:10:02	1200.00	18.62	7.06	415.65	0.74	9.05	0.14	-62.76
Last 5	10:15:02	1500.00	18.56	7.08	415.76	0.65	9.05	0.14	-73.15
Variance 0			0.03	0.04	3.41			-0.03	-17.18
Variance 1			-0.08	0.02	0.74			-0.00	-13.53
Variance 2			-0.06	0.02	0.11			-0.00	-10.39

Notes

Sonde SN

0950 start purge@250mL/min. 1015 all parameters stable. 1020 sampled@250mL/min. Light/moderate rain 53F

Grab Samples HGWA-3

Sampled@1020 2x.5gal, 1qt, 250mL

Date: 2016-12-06 12:50:46

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Rogers Company Name **ERM**

Project Name GPC - Plant Hammond Site Name Hammond - AP 1 & 2

Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 463068

Turbidity Make/Model Lamotte 2020we Pump placement from TOC

0 ft

QED bladder

LDPE

.25 in

20 ft

Well Information:

Well ID HGWA-4 Well diameter 2 in Well Total Depth 25.7 ft Screen Length 10 ft Depth to Water 9.03 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.6780546 L Calculated Sample Rate 300 sec Stabilization Drawdown 2.28 in **Total Volume Pumped** 16.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:28:01	5099.94	19.86	6.98	464.73	7.85	9.21	0.85	23.19
Last 5	12:33:01	5399.94	19.79	6.98	462.62	5.79	9.21	0.94	23.91
Last 5	12:38:01	5699.95	19.68	7.00	461.30	4.93	9.21	0.97	23.51
Last 5	12:43:01	5999.94	19.59	7.01	460.31	4.87	9.21	1.01	23.29
Last 5	12:48:01	6299.94	19.46	7.00	457.55	4.88	9.22	1.01	23.31
Variance 0			-0.11	0.02	-1.32			0.04	-0.40
Variance 1			-0.09	0.01	-0.99			0.03	-0.21
Variance 2			-0.13	-0.00	-2.76			0.00	0.01

Notes

All parameters stable. Weather: raining cold

Grab Samples HGWA-4 Sampling 1252

Date: 2016-12-08 10:43:06

Pump Information:

Project Information:

Operator Name Tracy Wardell Pump Model/Type QED Dedicated Bladder Company Name ERM Tubing Type LDPE/Teflon-lined LDPE

Project Name GPC - Plant Hammond Tubing Diameter 0.25 in Site Name AP 1&2 Tubing Length 22.4 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 364456

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 22.4 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWA-5 250 mL/min Total System Volume Well diameter 2 in 0.7012212 L 27.4 ft Calculated Sample Rate Well Total Depth 300 sec Screen Length 10 ft Stabilization Drawdown 8.76 in Depth to Water 7.21 ft **Total Volume Pumped** 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	10:19:49	900.02	17.36	6.47	193.77	7.02	7.94	0.76	35.89
Last 5	10:24:49	1200.02	17.45	6.48	195.92	5.41	7.94	0.71	34.82
Last 5	10:29:49	1500.02	17.45	6.48	198.48	4.75	7.94	0.63	32.68
Last 5	10:34:49	1800.07	17.40	6.49	202.35	4.64	7.94	0.58	28.52
Last 5	10:39:49	2100.02	17.42	6.50	204.86	4.51	7.95	0.54	27.06
Variance 0			-0.00	-0.00	2.56			-0.08	-2.14
Variance 1			-0.05	0.01	3.87			-0.05	-4.16
Variance 2			0.02	0.01	2.51			-0.04	-1.47

Notes

Started purge at 0951. Took 10 mins to get settings right for bladder pump control. Sample rate 250 mL/min. Weather - cloudy, 43. Water - clear, no odor. Control settings - ref 11, dis 4, 10 psi.

Grab Samples HGWA-5 Sample time 1044

Date: 2016-12-08 12:47:54

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Tracy Wardell

Company Name ERM Project Name GPC

Project Name GPC - Plant Hammond Site Name AP 1&2 Latitude 0° 0' 0" Longitude 0° 0' 0"

Longitude 0° 0' 0" Sonde SN 364456

Turbidity Make/Model LaMotte 2020we

Pump placement from TOC

45 ft

0.25 in

45 ft

QED Dedicated Bladder

LDPE/Teflon-lined LDPE

Well Information:

Well IDHGWA-6Well diameter2 inWell Total Depth50.0 ftScreen Length10 ftDepth to Water7.31 ft

Pumping Information:

Final Pumping Rate 250 mL/min
Total System Volume 0.9193729 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 14.04 in
Total Volume Pumped 23.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	12:22:12	3900.02	17.09	7.53	373.25	5.34	8.48	0.33	-112.12
Last 5	12:27:12	4200.02	17.09	7.53	372.78	5.04	8.46	0.33	-112.61
Last 5	12:32:12	4500.02	17.04	7.55	371.93	4.91	8.48	0.32	-113.00
Last 5	12:37:12	4800.02	17.07	7.55	372.64	4.91	8.48	0.31	-113.53
Last 5	12:42:12	5100.03	16.91	7.56	372.02	4.89	8.48	0.28	-113.73
Variance 0			-0.05	0.01	-0.86			-0.01	-0.40
Variance 1			0.03	0.00	0.72			-0.01	-0.52
Variance 2			-0.16	0.01	-0.62			-0.03	-0.20

Notes

Started purge at 1109.

Sample rate 250mL/min. Weather - cloudy, 45. Water - clear, no odor. Control settings - ref 11, dis 4, 21 psi. Longer purge due to low but above 5 NTU since bladder pump installed.

Grab Samples HGWA-6 Sample time 1247



Date: 2016-12-06 15:34:13

QED Bladder

LDPE

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Operator Name Markevious Thomas Pump Model/Type
Company Name ERM Tubing Type

Project Name GPC - Plant Hammond Tubing Diameter .25 in Site Name Hammond - AP 1 & 2 Tubing Length 25 ft

 Latitude
 0° 0' 0"

 Longitude
 0° 0' 0"

 Sonde SN
 365491

Turbidity Make/Model LaMotte2020we Pump placement from TOC 25 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-7 150 mL/min Total System Volume Well diameter 0.7263182 L 2 in Calculated Sample Rate Well Total Depth 29.8 ft 300 sec Screen Length Stabilization Drawdown 10 ft 1 in

Depth to Water 3.8 ft Total Volume Pumped 24.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:50:18	4801.00	18.68	7.14	698.08	6.53	3.91	0.12	243.16
Last 5	14:55:18	5101.00	18.64	7.14	698.09	8.67	3.89	0.16	225.82
Last 5	15:00:18	5401.91	18.61	7.14	698.20	4.03	3.90	0.14	214.23
Last 5	15:05:18	5701.91	18.56	7.14	698.06	3.41	3.90	0.15	192.39
Last 5	15:20:18	6601.90	18.51	7.15	707.50	2.31	3.90	0.40	142.30
Variance 0			-0.02	0.00	0.11			-0.02	-11.59
Variance 1			-0.05	-0.00	-0.13			0.01	-21.84
Variance 2			-0.05	0.01	9.43			0.26	-50.09

Notes

1330 start purge@250mL/min, 1440 SmarTroll did not log parameters. 1450 lower purge rate to 150mL/min, 1510 SmarTroll did not log parameters, 1515 SmarTroll did not log parameters, 1520 all parameters stable, 1525 sampled@150mL/min. Very light mist, windy, 61F

Grab Samples

HGWC-7

Sampled@1525 .5gal, 1qt, 250mL

Date: 2016-12-06 14:05:50

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Rogers Company Name ERM

Project Name GPC - Plant Hammond Site Name Hammond - AP 1 & 2

Latitude 0° 0' 0" Longitude 0° 0' 0" Sonde SN 463068

Turbidity Make/Model Lamotte 2020we

Pump placement from TOC

0 ft

LDPE

.25 in

19 ft

QED bladder

Well Information:

Well ID HGWC-8
Well diameter 2 in
Well Total Depth 24.7 ft
Screen Length 10 ft
Depth to Water 3.36 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6684019 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.36 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:49:16	300.03	19.38	7.00	1030.35	1.53	3.36	1.37	68.79
Last 5	13:54:16	599.96	19.37	6.98	1032.03	0.81	3.38	0.26	66.74
Last 5	13:59:16	899.95	19.59	7.00	1029.62	0.53	3.38	0.17	63.81
Last 5	14:04:16	1199.95	19.35	6.98	1034.02	0.90	3.39	0.14	62.89
Last 5									
Variance 0			-0.01	-0.02	1.67			-1.12	-2.05
Variance 1			0.22	0.02	-2.41			-0.08	-2.94
Variance 2			-0.24	-0.02	4.40			-0.03	-0.92

Notes

All parameters stable.

Grab Samples HGWC-8 Sampling at 1408

Date: 2016-12-06 15:12:57

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Rogers Company Name ERM

Project Name GPC - Plant Hammond Site Name Hammond - AP 1 & 2

Latitude 0° 0' 0" Longitude 0° 0' 0" Sonde SN 463068

Turbidity Make/Model Lamotte 2020we

Pump placement from TOC

0 ft

LDPE

.25 in

41 ft

QED bladder

Well Information:

Well ID HGWC-9
Well diameter 2 in
Well Total Depth 46.6 ft
Screen Length 10 ft
Depth to Water 16.09 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.880762 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:51:26	300.03	18.35	7.27	1174.80	0.41	16.15	1.81	6.88
Last 5	14:56:26	600.03	18.17	7.16	1188.11	0.42	16.14	0.27	23.30
Last 5	15:01:26	900.02	18.14	7.15	1190.79	0.40	16.14	0.15	25.22
Last 5	15:06:26	1200.03	18.08	7.15	1192.12	0.36	16.13	0.14	25.56
Last 5	15:11:26	1500.03	18.07	7.15	1193.92	0.33	16.13	0.11	25.40
Variance 0			-0.03	-0.00	2.68			-0.12	1.92
Variance 1			-0.06	-0.00	1.33			-0.02	0.33
Variance 2			-0.01	-0.00	1.80			-0.03	-0.16

Notes

Parameters stable weather: cloudy wet

Grab Samples HGWC-9

Sampling at 1515

Date: 2016-12-07 10:22:11

Alexis Peristaltic

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter.17 inSite NameHammond - AP 1 & 2Tubing Length23 ft

 Latitude
 0° 0' 0"

 Longitude
 0° 0' 0"

 Sonde SN
 365491

Turbidity Make/Model LaMotte2020we Pump placement from TOC 17 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-10 250 mL/min Total System Volume Well diameter 2 in 0.1926587 L 22.6 ft Calculated Sample Rate Well Total Depth 300 sec Screen Length Stabilization Drawdown 22 in 10 ft Depth to Water 16.93 ft **Total Volume Pumped** 11.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:40:02	600.02	18.58	6.58	1024.04	0.56	18.67	0.15	121.98
Last 5	09:45:02	900.01	18.79	6.56	1024.81	0.50	18.65	0.12	173.24
Last 5	09:50:02	1200.01	18.19	6.56	1019.00	0.70	17.04	0.11	201.34
Last 5	09:55:02	1500.01	17.95	6.56	1015.04	0.77	17.04	0.10	353.27
Last 5	10:00:02	1800.01	18.21	6.56	1055.76	0.62	17.04	0.10	446.73
Variance 0			-0.60	0.00	-5.81			-0.00	28.10
Variance 1			-0.24	-0.00	-3.97			-0.01	151.93
Variance 2			0.26	-0.00	40.72			-0.00	93.46

Notes

0930 start purge@500mL/min, 0945 reduce purge rate to 250mL/min, 1000 3 well volumes purged, all parameters stable, 1005 sampled@250mL/min. Sunny 45F

Grab Samples

HGWC-10

Sampled at 1005 .5gal, 1qt, 250mL

Date: 2016-12-07 13:03:45

Project Information:

Operator Name Markevious Thomas

Company Name

ERM Project Name GPC - Plant Hammond Site Name Hammond - AP 1 & 2

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 365491

Turbidity Make/Model LaMotte2020we

Well Information:

Well ID HGWC-11 Well diameter 2 in 25.99 ft Well Total Depth Screen Length 10 ft Depth to Water 18.2 ft

Pump Information:

Pump Model/Type Alexis Perstaltic

Tubing Type LDPE Tubing Diameter .17 in Tubing Length 27 ft

Pump placement from TOC 21 ft

Pumping Information:

Final Pumping Rate 100 mL/min Total System Volume 0.2105124 L Calculated Sample Rate 300 sec Stabilization Drawdown 13 in **Total Volume Pumped** 19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:30:32	4521.95	19.48	6.27	1139.72	7.67	18.46	1.48	411.60
Last 5	12:35:32	4821.95	19.64	6.27	1132.13	5.99	18.46	1.42	375.46
Last 5	12:40:32	5121.95	19.45	6.28	1141.64	4.81	18.47	1.39	351.33
Last 5	12:45:32	5421.95	19.62	6.28	1137.63	4.69	18.47	1.36	340.33
Last 5	12:50:32	5721.95	19.41	6.29	1134.79	3.85	18.47	1.36	410.49
Variance 0			-0.18	0.00	9.51			-0.04	-24.13
Variance 1			0.17	0.01	-4.01			-0.03	-11.00
Variance 2			-0.21	0.00	-2.83			0.00	70.17

Notes

1115 start pruge@500mL/min, 1135 reduce purge rate to 250mL/min, 1145 reduce purge rate to 100mL/min, 1205 3 well volumes (14.5L) purged,1250 all parameters stable, 1255 sampled@100mL/min. Sunny, light breezy, 52F

Grab Samples

HGWC-11

Sampled at 1255 .5gal, 1qt, 250mL

Date: 2016-12-07 09:37:51

Project Information:

W.Virgo

Pump Information: Pump Model/Type

QED bladder

Company Name Project Name Site Name Latitude

Operator Name

ERM GPC - Plant Hammond Hammond - AP 1 & 2 0° 0' 0" Tubing Type Tubing Diameter Tubing Length LDPE .25 in 40 ft

Longitude Sonde SN

0° 0' 0" 463068

Turbidity Make/Model Lamotte 2020we

Pump placement from TOC

30 ft

Well Information:

Well ID HGWC-12
Well diameter 2 in
Well Total Depth 35.10 ft
Screen Length 10 ft
Depth to Water 18.16 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8711092 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.6 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:15:30	300.04	18.63	6.92	1308.13	0.96	18.21	0.42	77.47
Last 5	09:20:30	600.03	18.70	6.92	1300.59	0.38	18.21	0.36	75.58
Last 5	09:25:30	900.02	18.66	6.91	1311.96	0.21	18.21	0.33	72.21
Last 5	09:30:30	1200.02	18.70	6.90	1326.29	0.20	18.21	0.35	68.80
Last 5	09:35:30	1500.02	18.70	6.92	1313.22	0.26	18.21	0.44	66.16
Variance 0			-0.04	-0.00	11.37			-0.03	-3.37
Variance 1			0.04	-0.02	14.33			0.02	-3.41
Variance 2			0.00	0.02	-13.07			0.08	-2.64

Notes

Started Purging well @ 0910 @ 200 ml/min

Weather: Sunny ~41F. Well parameters stable at 0935. Well sampled at 0940. Sample rate: 200 ml/min.

Grab Samples HGWC-12

Sample Time: 0940

Date: 2016-12-07 10:41:51

Project Information:

Operator Name W.Virgo Company Name ERM

Company Name ERM
Project Name GPC - Plant Hammond
Site Name Hammond - AP 1 & 2

 Latitude
 0° 0' 0"

 Longitude
 0° 0' 0"

 Sonde SN
 463068

Turbidity Make/Model Lamotte 2020we

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Well Information:

Well ID HGWC-13
Well diameter 2 in
Well Total Depth 44.6 ft
Screen Length 10 ft
Depth to Water 18.74 ft

Pump Information:

Pump Model/Type QED bladder

39.6 ft

Tubing TypeLDPETubing Diameter.25 inTubing Length45 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9193729 L
Calculated Sample Rate 300 sec
Stabilization Drawdown
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:18:38	300.03	20.57	6.89	871.81	0.35	18.78	0.58	5.60
Last 5	10:23:38	600.01	20.79	6.85	858.54	0.66	18.80	0.22	-4.41
Last 5	10:28:38	900.00	20.88	6.86	854.37	0.71	18.81	0.14	-16.57
Last 5	10:33:38	1200.00	20.91	6.87	852.08	0.64	18.81	0.11	-27.70
Last 5	10:38:38	1500.01	20.97	6.91	850.27	0.49	18.81	0.11	-35.91
Variance 0			0.09	0.00	-4.16			-0.08	-12.17
Variance 1			0.03	0.01	-2.29			-0.03	-11.12
Variance 2			0.06	0.04	-1.82			-0.00	-8.21

Notes

Weather: Sunny ~45 F. Started purging well at: 10:13. Purge rate: 200 ml/min

Well Parameters stable at 1038. Well sampled at 1045. Sample rate: 200 ml/min. DUP-2 collected.

Grab Samples HGWC-13

Sample Time: 1045

DUP-2

Date: 2016-12-07 11:56:01

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Well Information:

Operator Name W.Virgo **ERM**

Company Name Project Name GPC - Plant Hammond Site Name Hammond - AP 1 & 2

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 463068

Turbidity Make/Model Lamotte 2020we

Well ID HGWC-14 Well diameter 2 in 43 ft Well Total Depth Screen Length 10 ft Depth to Water 24.98 ft

Pumping Information:

Pump placement from TOC

Final Pumping Rate 200 mL/min Total System Volume 0.9193729 L Calculated Sample Rate 300 sec Stabilization Drawdown 1.68 in **Total Volume Pumped** 5 L

QED bladder

LDPE

.25 in

45 ft

38 ft

Low-Flow Sampling Stabilization Summary

LOW 1 10W OC	mpmig otabiliz	ation caninal							
	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:33:32	300.10	21.04	4.58	3353.31	0.81	25.07	0.48	74.30
Last 5	11:38:32	600.04	21.13	4.57	3352.79	0.92	25.09	0.22	64.27
Last 5	11:43:32	900.02	21.16	4.58	3352.44	0.73	25.11	0.20	60.29
Last 5	11:48:32	1200.00	21.11	4.59	3352.91	0.84	25.12	0.18	58.52
Last 5	11:53:32	1500.00	21.23	4.60	3347.94	0.77	25.12	0.20	57.25
Variance 0			0.03	0.01	-0.35			-0.01	-3.98
Variance 1			-0.06	0.00	0.48			-0.03	-1.77
Variance 2			0.12	0.01	-4.98			0.02	-1.27

Notes

Weather: Sunny ~50F. Started Purging at 1128. Purge rate 200 ml/min.

Well parameters stable at 1153. Well sampled at 1158. Sample rate: 200 ml/min

Grab Samples HGWC-14

Sample Time: 1158

Date: 2016-12-07 12:48:47

Project Information:

W.Virgo **ERM**

Pump Information: Pump Model/Type

Tubing Type LDPE Tubing Diameter .25 in Tubing Length 40 ft

Company Name Project Name Site Name Latitude

Longitude Sonde SN

Operator Name

Hammond - AP 1 & 2 00 0' 0" 00 0' 0"

463068

Turbidity Make/Model

Lamotte 2020we

GPC - Plant Hammond

Pump placement from TOC

33 ft

QED bladder

Well Information:

Well ID Well diameter Well Total Depth Screen Length Depth to Water

HGWC-15 2 in 38.00 ft 10 ft 18.70 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.8711092 L Calculated Sample Rate 300 sec Stabilization Drawdown 16.68 in **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:25:29	300.03	19.39	5.86	1561.72	0.80	20.01	0.28	18.49
Last 5	12:30:29	600.02	19.43	5.89	1573.45	0.77	20.06	0.20	19.38
Last 5	12:35:29	900.02	19.46	5.90	1556.07	0.58	20.08	0.23	19.83
Last 5	12:40:29	1200.02	19.46	5.88	1568.72	0.37	20.08	0.21	20.00
Last 5	12:45:29	1500.00	19.55	5.87	1555.62	0.47	20.09	0.21	20.40
Variance 0			0.03	0.01	-17.39			0.04	0.44
Variance 1			-0.00	-0.01	12.65			-0.02	0.17
Variance 2			0.08	-0.01	-13.10			0.00	0.40

Notes

Weather: Sunny ~55F. Started Purging well at 1220. Purge rate 200 ml/min. Well parameters stable @ 1245. Well sampled at 1250. Sample rate: 200 ml/min

Grab Samples HGWC-15

Sample Time: 1250

Date: 2016-12-07 14:51:39

Pump Information:

Project Information:

Operator Name Markevious Thomas Pump Model/Type QED Bladder

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter.25 inSite NameHammond - AP 1 & 2Tubing Length25 ft

 Latitude
 0° 0' 0"

 Longitude
 0° 0' 0"

 Sonde SN
 365491

Turbidity Make/Model LaMotte2020we Pump placement from TOC 28 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-16 150 mL/min Total System Volume Well diameter 0.7263182 L 2 in Calculated Sample Rate Well Total Depth 33.0 ft 300 sec Screen Length Stabilization Drawdown 10 ft 5 in Depth to Water 12.84 ft **Total Volume Pumped** 9.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:20:01	1500.02	18.64	6.78	862.23	5.83	13.44	0.17	-30.05
Last 5	14:25:01	1800.08	18.56	6.81	865.55	5.21	13.34	0.18	-39.24
Last 5	14:30:01	2100.02	18.65	6.84	866.81	4.26	13.30	0.15	-45.00
Last 5	14:35:01	2399.98	18.78	6.84	869.16	3.72	13.28	0.16	-50.84
Last 5	14:40:01	2699.98	18.79	6.85	868.11	3.09	13.28	0.17	-57.19
Variance 0			0.09	0.03	1.27			-0.03	-5.76
Variance 1			0.12	0.00	2.35			0.01	-5.85
Variance 2			0.01	0.01	-1.05			0.01	-6.34

Notes

1355 start purge@250mL/min, 1420 reduce purge rate to 150mL/min, 1440 all parameters stable, 1445 sampled at 150mL/min. Sunny, light breeze, 56F

Grab Samples

HGWC-16

Sampled at 1445 .5gal, 1qt, 250mL

Date: 2016-12-07 14:26:39

Pump Information:

Project Information:

Operator Name W.Virgo Pump Model/Type QED bladder

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter.25 inSite NameHammond - AP 1 & 2Tubing Length30 ft

 Latitude
 0° 0' 0"

 Longitude
 0° 0' 0"

 Sonde SN
 463068

Turbidity Make/Model Lamotte 2020we Pump placement from TOC 22 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-17 500 mL/min Total System Volume Well diameter 0.7745819 L 2 in Well Total Depth 27.8 ft Calculated Sample Rate 300 sec Screen Length Stabilization Drawdown 10.32 in 10 ft Depth to Water 17.39 ft **Total Volume Pumped** 23 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:02:30	2099.99	20.01	6.21	1286.28			0.29	34.45
Last 5	14:07:30	2399.99	19.99	6.20	1289.79	2.25	18.25	0.33	34.50
Last 5	14:12:30	2699.99	19.77	6.22	1268.15	1.72	17.86	0.61	33.77
Last 5	14:17:30	2999.96	19.81	6.24	1279.85	1.26	17.76	0.55	32.23
Last 5	14:22:30	3299.97	19.72	6.23	1282.64	1.19	17.73	0.55	32.92
Variance 0			-0.22	0.02	-21.64			0.28	-0.73
Variance 1			0.03	0.02	11.70			-0.05	-1.54
Variance 2			-0.09	-0.01	2.79			-0.00	0.68

Notes

Due to WL 3 well volume method required. Purging started at 1327. Purge rate 500 ml/min.

Well parameters stable at 1422. Well sampled at 1427. 3 well volumes purged at 500ml/min (20 L purged at 500 ml/min). Purge rate lowered to 200 ml/min at 1407. Well sampled at 200 ml/min

Grab Samples HGWC-17 Sample Time: 1427

Date: 2016-12-08 14:16:12

Project Information:

Operator Name Tracy Wardell

Company Name **ERM** Project Name GPC - Plant Hammond

Site Name AP 1&2 Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 364456

Turbidity Make/Model LaMotte 2020we

Well Information:

Well ID HGWC-18 Well diameter 2 in Well Total Depth 27.7 ft Screen Length 10 ft Depth to Water 16.92 ft

Pump Information:

Pump Model/Type **QED Dedicated Bladder Tubing Type** LDPE/Teflon-lined LDPE

Tubing Diameter 0.25 in Tubing Length 22.7 ft

Pump placement from TOC

22.7 ft

Pumping Information:

Final Pumping Rate 500 mL/min Total System Volume 0.704117 L Calculated Sample Rate 300 sec Stabilization Drawdown 3.96 in **Total Volume Pumped** 22 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	ed Temp C pH SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV		
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	13:52:23	900.02	19.79	4.55	2348.26	1.32	17.23	0.12	294.77
Last 5	13:57:23	1200.02	19.79	4.54	2352.25	0.96	17.23	0.12	295.69
Last 5	14:02:23	1500.02	19.79	4.55	2350.08	0.43	17.24	0.11	294.53
Last 5	14:07:23	1800.02	19.76	4.55	2347.22	0.41	17.24	0.11	291.72
Last 5	14:12:23	2100.02	19.74	4.56	2343.77	0.36	17.25	0.10	288.84
Variance 0			0.00	0.00	-2.17			-0.01	-1.16
Variance 1			-0.03	0.01	-2.86			-0.00	-2.81
Variance 2			-0.02	0.01	-3.45			-0.01	-2.88

Notes

Started purge at 1328

Sample rate 250 mL/min. Weather - cloudy, 47. Water - clear, no odor. Settings - ref 10 dis 5 psi 13 for purge, 10 for sampling

Grab Samples HGWC-18

Sample time 1417

Date: 2017-01-24 10:07:03

Pump Information:

Dedicated Bladder

Project Information:

Operator Name M.Burch Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter0.25 inSite NameAP 1&2Tubing Length32 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 463453

Turbidity Make/Model LaMotte 2020We Pump placement from TOC 27 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWA-1 200 mL/min Well diameter Total System Volume 0.7938874 L 2 in Well Total Depth 32.6 ft Calculated Sample Rate 300 sec Screen Length 10 ft Stabilization Drawdown 9 in Depth to Water 5 L 14.94 ft **Total Volume Pumped**

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:41:55	600.00	16.96	7.21	503.03	0.59	15.63	0.19	0.02
Last 5	09:46:55	899.99	17.08	7.21	516.33	0.43	15.69	0.17	-2.72
Last 5	09:51:55	1199.99	17.01	7.21	527.47	0.53	15.69	0.15	-4.39
Last 5	09:56:55	1499.99	16.87	7.21	535.34	1.02	15.68	0.14	-5.65
Last 5	10:01:55	1800.00	17.10	7.20	541.25	0.59	15.68	0.13	-7.78
Variance 0			-0.07	-0.00	11.14			-0.02	-1.68
Variance 1			-0.14	-0.00	7.86			-0.01	-1.26
Variance 2			0.22	-0.01	5.91			-0.01	-2.13

Notes

Started purging @ 9:32 @ 200 ml/min

Stop Purging @ 0957- Sampling Time @ 1005 Sampling rate @200ML/min

Grab Samples HGWA-1

Sample Time 1005

Date: 2017-01-24 11:25:10

Project Information:

Operator Name W.Virgo Company Name **ERM**

Project Name GPC - Plant Hammond Site Name AP 1&2

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 449622

Turbidity Make/Model LaMotte 2020We

Well Information:

Well ID HGWA-2 Well diameter 2 in Well Total Depth 27.9 ft Screen Length 10 ft Depth to Water 6.82 ft

Pump Information:

Pump Model/Type **Dedicated Bladder**

Tubing Type LDPE Tubing Diameter 0.25 in Tubing Length 32 ft

Pump placement from TOC 22 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.7938874 L Calculated Sample Rate 300 sec Stabilization Drawdown 3 in **Total Volume Pumped** 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:02:53	599.91	18.97	5.39	191.29	2.95	7.07	0.58	55.45
Last 5	11:07:53	899.91	19.05	5.39	189.32	2.42	7.07	0.47	51.75
Last 5	11:12:53	1199.91	19.06	5.38	187.72	2.12	7.07	0.40	50.33
Last 5	11:17:53	1499.91	19.07	5.36	192.04	1.57	7.07	0.42	47.87
Last 5	11:22:53	1799.91	19.11	5.37	185.94	1.39	7.07	0.39	45.81
Variance 0			0.01	-0.01	-1.60			-0.07	-1.41
Variance 1			0.01	-0.02	4.31			0.02	-2.46
Variance 2			0.05	0.01	-6.09			-0.04	-2.06

Notes

Started Purging well at 1053 purge rate: 200 ml/min

Weather: Sunny 50 F. Purge completed at 1123. Sampled at 1130. Sample rate: 200 ml/min

Grab Samples HGWA-2

Sample Time: 1130

Date: 2017-01-24 11:28:20

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M.Burch Company Name **ERM**

Project Name GPC - Plant Hammond

Site Name AP 1&2 Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 463453

Turbidity Make/Model LaMotte 2020We Pump placement from TOC

39 ft

Dedicated Bladder

LDPE

43 ft

0.25 in

Well Information:

Well ID HGWA-3 Well diameter 2 in Well Total Depth 44.6 ft Screen Length 10 ft Depth to Water 6.62 ft

Pumping Information: Final Pumping Rate

200 mL/min Total System Volume 0.9000674 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.6 in **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:03:01	300.09	18.52	7.28	442.60	2.42	6.62	0.21	-88.40
Last 5	11:08:01	600.03	18.61	7.31	446.92	1.45	6.63	0.12	-98.85
Last 5	11:13:01	899.99	18.51	7.34	446.74	1.98	6.64	0.11	-104.08
Last 5	11:18:01	1199.99	18.61	7.37	445.71	1.39	6.67	0.11	-107.20
Last 5	11:23:01	1499.99	18.52	7.39	445.45			0.10	-108.63
Variance 0			-0.11	0.03	-0.18			-0.01	-5.23
Variance 1			0.11	0.03	-1.03			-0.00	-3.12
Variance 2			-0.09	0.02	-0.26			-0.00	-1.43

Notes

Start purge at 1058 Stopped purging @1124

Grab Samples HGWA-3 Sample time 1129

Date: 2017-01-24 13:06:27

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M.Burch Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453

Turbidity Make/Model LaMotte 2020We

Pump placement from TOC

21 ft

LDPE

26 ft

0.25 in

Dedicated Bladder

Well Information:

Well ID HGWA-4
Well diameter 2 in
Well Total Depth 25.7 ft
Screen Length 10 ft
Depth to Water 4.93 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.735971 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.58 in
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:43:00	2099.99	18.66	6.12	202.33	6.18	5.37	0.24	164.42
Last 5	12:48:00	2399.99	18.91	6.13	209.49	5.37	5.38	0.24	171.00
Last 5	12:53:00	2699.99	18.75	6.13	212.43	4.66	5.35	0.25	175.89
Last 5	12:58:00	2999.99	18.87	6.16	217.67	4.57	5.35	0.27	178.33
Last 5	13:03:00	3299.99	18.85	6.16	222.03	3.57	5.32	0.24	181.05
Variance 0			-0.17	0.00	2.94			0.01	4.88
Variance 1			0.12	0.03	5.24			0.01	2.44
Variance 2			-0.02	0.00	4.36			-0.03	2.73

Notes

Started purging at 1208 Stopped purging at 1305

Grab Samples HGWA-4 Started sampling at 1308-200ML/min

Date: 2017-01-24 15:12:41

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name W.Virgo Company Name ERM

Project Name GPC - Plant Hammond Site Name AP 1&2

Latitude 0° 0' 0" Longitude 0° 0' 0" Sonde SN 449622

Turbidity Make/Model LaMotte 2020We

otte 2020We Pump placement from TOC

Well Information:

Well ID HGWA-5
Well diameter 2 in
Well Total Depth 27.4 ft
Screen Length 10 ft
Depth to Water 5.58 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7745819 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 18.12 in
Total Volume Pumped 9 L

Dedicated Bladder

LDPE

30 ft

0.25 in

22.4 ft

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:49:55	1499.87	18.03	6.58	208.52	5.84	6.93	0.31	27.32
Last 5	14:54:55	1799.87	18.02	6.53	210.26	5.72	6.95	0.30	28.26
Last 5	14:59:55	2099.87	17.90	6.56	210.35	4.97	7.01	0.28	26.92
Last 5	15:04:55	2399.87	18.11	6.56	213.35	3.84	7.06	0.25	26.60
Last 5	15:09:55	2699.87	18.15	6.59	216.75	3.73	7.09	0.22	26.28
Variance 0			-0.12	0.03	0.08			-0.03	-1.34
Variance 1			0.21	0.00	3.00			-0.03	-0.32
Variance 2			0.05	0.03	3.40			-0.03	-0.32

Notes

Weather: Sunny 69F. Started Purging @ 1425. Purge rate: 200 ml/min Well parameters stable at 15:10. Well sampled at 15:15 @ 200 ml/min.

Grab Samples HGWA-5

Sample Time: 1515

Date: 2017-01-24 15:06:02

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M.Burch Company Name **ERM**

Project Name GPC - Plant Hammond Site Name AP 1&2

00 0' 0" Latitude Longitude 00 0' 0" Sonde SN 463453

Turbidity Make/Model LaMotte 2020We Pump placement from TOC

45 ft

Well Information:

Well ID HGWA-6 Well diameter 2 in Well Total Depth 50 ft Screen Length ft Depth to Water 5.29 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.9579839 L Calculated Sample Rate 300 sec Stabilization Drawdown 31.2 in **Total Volume Pumped** 7 L

Dedicated Bladder

LDPE

49 ft

0.25 in

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:41:48	900.03	18.06	7.49	364.37	3.75	7.42	0.08	-75.48
Last 5	14:46:48	1200.02	18.01	7.50	364.12	5.06	7.75	0.08	-86.04
Last 5	14:51:48	1500.03	18.02	7.50	363.51	3.82	7.85	0.08	-98.08
Last 5	14:56:48	1800.02	18.03	7.50	363.41	4.16	7.89	0.08	-105.65
Last 5	15:01:48	2100.03	17.90	7.52	363.09	4.09	7.89	0.08	-111.48
Variance 0			0.01	0.00	-0.61			-0.00	-12.04
Variance 1			0.01	0.00	-0.11			0.00	-7.57
Variance 2			-0.13	0.02	-0.32			0.00	-5.83

Notes

Started purging at 1427 Stopped purging at 1502

Grab Samples HGWA-6 1508

Date: 2017-01-26 09:53:10

Project Information:

Operator Name

Markevieus Themas

Pump Model/Type

Operator Name Markevious Thomas Pump Model/Type Alexis Peristaltic

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter0.17 inSite NameAP 1&2Tubing Length25 ft

Latitude 0° 0' 0" Longitude 0° 0' 0" Sonde SN 449622

Turbidity Make/Model LaMotte 2020We Pump placement from TOC 17 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-10 100 mL/min Well diameter Total System Volume 0.2015856 L 2 in Calculated Sample Rate Well Total Depth 22.6 ft 300 sec Screen Length 10 ft Stabilization Drawdown 0 in

Depth to Water 11.35 ft Stabilization Drawdown 0 in Stabilization Drawdown 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:25:10	900.02	13.95	6.81	539.32	0.40	11.37	7.30	86.53
Last 5	09:30:10	1200.02	13.95	6.81	552.42	0.42	11.37	7.33	84.03
Last 5	09:35:10	1500.02	14.22	6.82	549.70	0.64	11.37	7.26	82.38
Last 5	09:40:10	1799.95	14.22	6.83	549.61	0.22	11.37	7.11	81.09
Last 5	09:45:10	2099.95	14.35	6.83	549.93	0.17	11.36	7.13	79.64
Variance 0			0.27	0.01	-2.72			-0.07	-1.65
Variance 1			0.00	0.01	-0.08			-0.14	-1.29
Variance 2			0.13	-0.00	0.32			0.02	-1.44

Notes

0910 Start purge at 100mL/min; 0945 all parameters stable; 0950 sampled at 100mL/min. 48F, Sunny, windy

Grab Samples HGWC-10 Sampled at 0950 DUP-1 Sampled at 0950

Date: 2017-01-25 15:11:19

Project Information:

Operator Name M.Burch Company Name **ERM**

Project Name GPC - Plant Hammond Site Name AP 1&2

00 0' 0" Latitude 00 0' 0" Longitude Sonde SN 463453

Turbidity Make/Model LaMotte 2020We

Well Information:

Well ID HGWC-7 Well diameter 2 in Well Total Depth 29.8 ft Screen Length 10 ft Depth to Water 3.84 ft

Pump Information:

Pump Model/Type **Dedicated Bladder**

Tubing Type LDPE Tubing Diameter 0.25 in Tubing Length 6 ft

Pump placement from TOC

24 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.5429164 L Calculated Sample Rate 300 sec Stabilization Drawdown 2.88 in **Total Volume Pumped** 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:48:49	1500.03	18.75	7.11	683.34	5.82	4.05	0.08	33.79
Last 5	14:53:49	1800.03	18.70	7.12	683.56	5.41	4.06	0.08	32.72
Last 5	14:58:49	2100.03	18.67	7.11	683.92	5.16	4.08	0.07	30.00
Last 5	15:03:49	2400.03	18.69	7.11	682.88	4.30	4.07	0.07	27.53
Last 5	15:08:49	2700.03	18.66	7.11	683.55	4.50	4.08	0.07	25.98
Variance 0			-0.03	-0.01	0.36			-0.00	-2.72
Variance 1			0.03	0.00	-1.04			-0.00	-2.47
Variance 2			-0.04	-0.00	0.67			-0.00	-1.54

Notes

Grab Samples HGWC-7

Taking sample @1513

Date: 2017-01-25 14:45:53

Pump Information:

Dedicated Bladder

Project Information:

Operator Name W.Virgo Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter0.25 inSite NameAP 1&2Tubing Length26 ft

Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622

Turbidity Make/Model LaMotte 2020We Pump placement from TOC 19.7 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWA-8 200 mL/min Well diameter Total System Volume 0.735971 L 2 in Calculated Sample Rate Well Total Depth 24.7 ft 300 sec Screen Length 10 ft Stabilization Drawdown 1 in Depth to Water 2.35 ft **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:24:01	300.10	19.10	7.05	995.77	0.92	2.39	0.15	79.21
Last 5	14:29:01	600.03	19.06	7.05	995.92	0.44	2.40	0.15	81.49
Last 5	14:34:01	900.02	19.15	7.04	994.53	0.32	2.40	0.13	82.65
Last 5	14:39:01	1200.02	19.05	7.04	995.23	0.25	2.40	0.13	83.55
Last 5	14:44:01	1500.02	19.24	7.04	992.33	0.23	2.40	0.13	84.12
Variance 0			0.09	-0.00	-1.39			-0.02	1.16
Variance 1			-0.10	-0.00	0.71			0.01	0.90
Variance 2			0.18	-0.00	-2.91			-0.00	0.57

Notes

Weather: Sunny ~65F. Started Purging at 14:19 purge rate: 200 ml/min. Well parameters stable @ 1444. Well sampled at 1448. Rate: 200ml/min

Grab Samples HGWC-8

Sample Time: 1448

Date: 2017-01-26 09:23:02

Project Information:

Operator Name M.Burch Company Name **ERM**

Project Name GPC - Plant Hammond

Site Name AP 1&2 Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 463453

Turbidity Make/Model LaMotte 2020We

Well Information:

Well ID HGWC-9 Well diameter 2 in Well Total Depth 46.6 ft Screen Length 10 ft Depth to Water 13.04 ft

Pump Information:

Pump Model/Type **Dedicated Bladder**

41 ft

Tubing Type LDPE Tubing Diameter 0.25 in Tubing Length 4 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.5236109 L Calculated Sample Rate 300 sec Stabilization Drawdown 1.2 in **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:00:52	300.11	17.36	6.97	1220.09	0.22	13.12	0.31	11.14
Last 5	09:05:52	600.03	17.41	6.97	1217.41	0.45	13.13	0.13	15.68
Last 5	09:10:52	900.02	17.44	6.98	1215.02	0.63	13.13	0.11	16.93
Last 5	09:15:52	1200.02	17.39	6.98	1216.12	0.83	13.13	0.10	16.68
Last 5	09:20:52	1500.03	17.36	6.99	1216.12	1.03	13.14	0.10	17.07
Variance 0			0.03	0.01	-2.39			-0.02	1.24
Variance 1			-0.05	0.00	1.10			-0.01	-0.24
Variance 2			-0.03	0.00	0.01			-0.00	0.39

Notes

Started purging at 0855

Grab Samples HGWC-9

Started sample at 0925

Date: 2017-01-26 12:19:47

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Operator Name Markevious Thomas Pump Model/Type Alexis Peristaltic Company Name ERM Tubing Type LDPE

Company Name ERM Tubing Type LDPE
Project Name GPC - Plant Hammond Tubing Diameter 0.17 in
Site Name AP 1&2 Tubing Length 25 ft

Latitude 0° 0' 0" Longitude 0° 0' 0" Sonde SN 449622

Turbidity Make/Model LaMotte 2020We Pump placement from TOC 17 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-11 250 mL/min Well diameter Total System Volume 0.2015856 L 2 in Calculated Sample Rate Well Total Depth 22.3 ft 300 sec Screen Length 10 ft Stabilization Drawdown 11 in Depth to Water 14.34 ft **Total Volume Pumped** 15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:50:46	1500.02	18.93	6.42	841.19	0.25	15.26	0.59	90.56
Last 5	11:55:47	1800.92	19.05	6.42	842.27	0.19	15.26	0.58	90.26
Last 5	12:00:47	2100.92	18.70	6.46	841.86	0.19	14.80	0.57	89.35
Last 5	12:05:47	2400.92	18.52	6.47	844.01	0.07	14.79	0.56	88.43
Last 5	12:10:47	2700.92	18.58	6.46	851.69	0.12	14.79	0.56	88.14
Variance 0			-0.35	0.04	-0.41			-0.01	-0.91
Variance 1			-0.18	0.01	2.15			-0.01	-0.92
Variance 2			0.06	-0.01	7.68			0.00	-0.29

Notes

1125 start purge at 400mL/min; 1200 reduce purge rate to 250mL/min; 1212 all parameters stable, 3 well volumes purged; 1215 sampled at 250mL/min. 50F, Sunny, Windy

Grab Samples HGWC-11

Sampled at 1215

Date: 2017-01-26 09:40:54

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name W.Virgo Company Name **ERM**

Project Name GPC - Plant Hammond Site Name AP 1&2

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 440279

Turbidity Make/Model LaMotte 2020We

Pump placement from TOC

30 ft

Dedicated Bladder

LDPE

35 ft

0.25 in

Well Information:

Well ID HGWC-12 Well diameter 2 in 35.10 ft Well Total Depth Screen Length 10 ft Depth to Water 14.41 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.8228456 L Calculated Sample Rate 300 sec Stabilization Drawdown 0 in **Total Volume Pumped** 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:18:00	600.09	18.70	6.98	1210.65	1.05	14.42	0.25	138.30
Last 5	09:23:00	900.04	18.68	7.01	1209.30	0.46	14.42	0.17	135.54
Last 5	09:28:00	1200.03	18.66	7.03	1210.50	0.56	14.42	0.16	133.35
Last 5	09:33:00	1500.01	18.70	7.05	1211.23	0.49	14.42	0.16	130.46
Last 5	09:38:00	1800.00	18.68	7.05	1206.89	0.43	14.42	0.15	127.77
Variance 0			-0.02	0.02	1.20			-0.01	-2.19
Variance 1			0.04	0.01	0.73			-0.00	-2.89
Variance 2			-0.02	0.00	-4.34			-0.01	-2.69

Notes

Started Purge at: 0908. Purge rate: 200ml/min

Weather: Sunny/Cold ~45F. Parameters stable at 0938, sampled at 0943. Sample rate: 200ml/min. 2nd Rad collected.

Grab Samples HGWC-12

Sample Time: 0943

2nd Rad

Lab QA/QC

Date: 2017-01-26 10:50:17

Project Information:

Operator Name

W.Virgo

Pump Information:

Pump Model/Type

Operator Name W.Virgo Pump Model/Type Dedicated Bladder Company Name ERM Tubing Type LDPE Project Name GPC - Plant Hammond Tubing Diameter 0.25 in Site Name AP 1&2 Tubing Length 45 ft

Site Name AP 1&2 Tubing Length
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 440279

Turbidity Make/Model LaMotte 2020We Pump placement from TOC 39.6 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-13 200 mL/min Well diameter Total System Volume 0.9193729 L 2 in Calculated Sample Rate 44.60 ft Well Total Depth 300 sec Screen Length 10 ft Stabilization Drawdown 1.32 in Depth to Water 17.65 ft **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:26:59	300.02	17.14	7.06	799.81	2.42	17.75	3.52	25.48
Last 5	10:31:59	600.01	20.32	7.08	650.47	5.90	17.76	0.82	27.80
Last 5	10:36:59	900.01	20.62	7.09	630.42	2.15	17.76	0.40	31.79
Last 5	10:41:59	1199.99	20.62	7.08	623.65	1.81	17.76	0.26	33.55
Last 5	10:46:59	1499.99	20.60	7.08	623.39	2.13	17.76	0.20	33.94
Variance 0			0.30	0.00	-20.05			-0.42	3.98
Variance 1			0.00	-0.01	-6.77			-0.14	1.77
Variance 2			-0.02	-0.00	-0.27			-0.06	0.39

Notes

Weather: sunny ~50F. Started Purging at 1022. Purge rate: 200ml/min

Strong odor from well after starting purge. Parameters stable at 1047. Sampled at 1052 @ 200 ml/min

Grab Samples HGWC-13

Sample Time: 1052

DUP-2

Date: 2017-01-26 13:26:07

Pump Information:

Project Information:

Operator Name W.Virgo Pump Model/Type Dedicated Bladder

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter0.25 inSite NameAP 1&2Tubing Length45 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 440279

Turbidity Make/Model LaMotte 2020We Pump placement from TOC 38 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC14 200 mL/min Total System Volume Well diameter 0.9193729 L 2 in Calculated Sample Rate Well Total Depth 43.00 ft 300 sec Screen Length 10 ft Stabilization Drawdown 2 in Depth to Water 22.85 ft **Total Volume Pumped** 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:48:59	1799.99	20.72	4.80	3472.33	0.35	23.02	0.39	67.35
Last 5	12:53:59	2099.97	20.83	4.80	3480.79	0.16	22.98	0.60	67.64
Last 5	12:58:59	2399.97	20.83	4.80	3468.29	0.28	22.93	0.47	67.58
Last 5	13:03:59	2699.97	20.84	4.80	3441.97	0.24	22.93	0.26	67.50
Last 5	13:08:59	2999.97	20.76	4.80	3456.39	0.13	22.93	0.15	67.88
Variance 0			0.00	-0.00	-12.50			-0.13	-0.05
Variance 1			0.01	-0.00	-26.32			-0.21	-0.09
Variance 2			-0.08	0.01	14.42			-0.11	0.39

Notes

Started Purging at 12:19. Purge rate 200 ml/min

1219 WV starts purge at 200mL/min; 1309 all parameters stable; 1315 sampled by MT at 200mL/min. 52F, sunny, windy.

Grab Samples HGWC-14

Sampled at 1315

Date: 2017-01-26 14:39:38

Dedicated Bladder

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter0.25 inSite NameAP 1&2Tubing Length38 ft

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622

Turbidity Make/Model LaMotte 2020We Pump placement from TOC 33 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-15 250 mL/min Well diameter Total System Volume 2 in 0.8518038 L Well Total Depth 38 ft Calculated Sample Rate 300 sec Screen Length Stabilization Drawdown 9 in 10 ft Depth to Water 15.02 ft **Total Volume Pumped** 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:05:02	300.09	18.30	6.11	1616.12	0.38	15.58	1.55	69.79
Last 5	14:10:02	600.03	18.48	6.06	1629.11	1.09	15.68	0.84	66.96
Last 5	14:15:02	900.03	18.67	6.04	1640.84	0.62	15.77	0.33	65.85
Last 5	14:20:02	1200.03	18.70	6.05	1649.67	0.01	15.77	0.23	65.14
Last 5	14:25:03	1500.92	18.94	6.05	1642.77	0.66	15.77	0.21	64.76
Variance 0			0.19	-0.01	11.73			-0.52	-1.11
Variance 1			0.03	0.00	8.83			-0.10	-0.71
Variance 2			0.23	0.00	-6.90			-0.02	-0.38

Notes

1400 start purge at 200mL/min; 1425 all parameters stable; 1430 sampled at 250mL/min. 53F, Sunny and windy

Grab Samples HGWC-15

Sampled at 1430

Date: 2017-01-26 11:06:42

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M.Burch Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453

Turbidity Make/Model LaMotte 2020We

Pump placement from TOC

28 ft

LDPE

4 ft

0.25 in

Dedicated Bladder

Well Information:

Well ID HGWC-16
Well diameter 2 in
Well Total Depth 33 ft
Screen Length 10 ft
Depth to Water 12.59 ft

Pumping Information: Final Pumping Rate

Final Pumping Rate 200 mL/min
Total System Volume 0.5236109 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:42:45	1799.99	18.00	7.07	859.47	7.09	12.59	0.09	-87.95
Last 5	10:47:45	2099.99	18.01	7.06	870.03	5.35	12.62	0.09	-92.16
Last 5	10:52:45	2399.99	18.08	7.06	873.42	4.54	12.63	0.09	-92.28
Last 5	10:57:45	2699.99	18.14	7.07	875.47	4.48	12.59	0.09	-91.90
Last 5	11:02:45	2999.99	18.15	7.07	875.47	4.54	12.63	0.09	-91.53
Variance 0			0.07	0.01	3.39			0.00	-0.12
Variance 1			0.06	0.00	2.06			0.00	0.38
Variance 2			0.00	0.00	0.00			-0.00	0.38

Notes

Stop purge at 1102 @ 200mL/min

Grab Samples HGWC-16

Start sampling at 1107

Date: 2017-01-26 13:18:35

Project Information:

Operator Name M.Burch Company Name **ERM**

Project Name GPC - Plant Hammond Site Name AP 1&2

Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 463453

Turbidity Make/Model LaMotte 2020We

Well Information:

Well ID HGWC-17 Well diameter 2 in Well Total Depth 28.7 ft Screen Length 10 ft Depth to Water 16.96 ft

Pump Information:

Pump Model/Type **Dedicated Bladder**

22 ft

Tubing Type LDPE Tubing Diameter 0.25 in Tubing Length 4 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 500 mL/min Total System Volume 0.5236109 L Calculated Sample Rate 300 sec Stabilization Drawdown 4.8 in **Total Volume Pumped** 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:55:06	3903.99	19.25	6.23	1295.08	7.46	17.63	0.13	101.22
Last 5	13:00:06	4203.99	19.24	6.24	1291.94	5.93	17.59	0.15	103.51
Last 5	13:05:06	4503.99	19.22	6.23	1289.65	4.50	17.58	0.17	104.28
Last 5	13:10:06	4803.99	19.22	6.24	1292.85	3.21	17.57	0.14	104.45
Last 5	13:15:06	5103.99	19.16	6.24	1298.56	2.67	17.55	0.13	106.58
Variance 0			-0.01	-0.00	-2.29			0.02	0.76
Variance 1			-0.01	0.00	3.20			-0.03	0.17
Variance 2			-0.06	-0.00	5.71			-0.01	2.12

Notes

Due to WL within 1ft of screen 3 well volume method required

Grab Samples HGWC-17

Started sampling at 1320

Date: 2017-01-26 15:10:43

Project Information:

Operator Name M.Burch Company Name ERM

Project Name GPC - Plant Hammond Site Name AP 1&2 Latitude 0° 0' 0"

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 463453

Turbidity Make/Model LaMotte 2020We

Well Information:

Well ID HGWC-18
Well diameter 2 in
Well Total Depth 27.70 ft
Screen Length 10 ft
Depth to Water 17.50 ft

Pump Information:

Pump Model/Type Dedicated Bladder

22 ft

Tubing TypeLDPETubing Diameter0.25 inTubing Length4 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate
Total System Volume
Calculated Sample Rate
Stabilization Drawdown
Total Volume Pumped

500 mL/min
0.5236109 L
300 sec
12.84 in
62 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:47:51	2400.99	17.86	4.61	2356.07			0.11	282.04
Last 5	14:52:51	2700.99	17.88	4.61	2355.18	0.26	17.72	0.10	281.98
Last 5	14:57:51	3001.00	17.83	4.61	2351.97	0.15	17.52	0.12	281.63
Last 5	15:02:51	3300.99	17.86	4.63	2351.52	0.16	17.49	0.12	280.07
Last 5	15:07:51	3601.00	17.86	4.61	2354.81	0.72	17.57	0.12	283.79
Variance 0			-0.05	-0.00	-3.20			0.02	-0.35
Variance 1			0.03	0.01	-0.46			0.00	-1.56
Variance 2			-0.00	-0.01	3.30			-0.01	3.72

Notes

3 Well Volume required due to wL

Grab Samples HGWC-18

Started sampling at 1512

Date: 2017-03-21 10:25:18

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Burch Company Name ERM

Project Name GPC-Plant Hammond

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516

Turbidity Make/Model LaMotte 2020we

Pump placement from TOC

17 ft

LDPE

27 ft

0.375 in

Dedicated Bladder

Well Information:

Well ID HGWA-1
Well diameter 2 in
Well Total Depth 32.6 ft
Screen Length 10 ft
Depth to Water 12.61 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.071403 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 14.4 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:02:56	300.13	17.15	7.01	600.69	2.12	13.39	0.33	66.90
Last 5	10:07:56	600.03	17.14	7.02	596.54	1.37	13.73	0.32	61.32
Last 5	10:12:56	900.02	17.14	7.01	594.01	1.15	13.75	0.26	56.22
Last 5	10:17:56	1200.02	17.19	7.01	592.83	0.96	13.79	0.24	51.23
Last 5	10:22:56	1500.03	17.25	7.01	590.89	0.83	13.80	0.23	47.03
Variance 0			-0.00	-0.00	-2.52			-0.06	-5.10
Variance 1			0.05	-0.00	-1.18			-0.02	-4.99
Variance 2			0.06	-0.00	-1.94			-0.02	-4.20

Notes

Starting Purge at 0958 @ 200mL/min Finish Purging at 1023 at 200mL/min

Grab Samples
HGWA-1-20170321-01
Grabbed Sample At 1028 @200mL/min

Date: 2017-03-21 10:57:09

Project Information:

Operator Name W.Virgo Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068

Turbidity Make/Model LaMotte 2020 We

Well Information:

Well ID HGWA-2
Well diameter 2 in
Well Total Depth 27.9 ft
Screen Length 10 ft
Depth to Water 6.35 ft

Pump Information:

Pump Model/Type Dedicated Bladder

23 ft

Tubing TypeLDPETubing Diameter0.375 inTubing Length30 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.136559 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.32 in
Total Volume Pumped 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed Temp C pH		рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:33:54	2699.97	18.25	4.94	189.72	3.19	6.46	0.25	98.72
Last 5	10:38:54	2999.97	18.25	4.91	188.92	3.34	6.64	0.25	99.77
Last 5	10:43:54	3299.96	18.21	4.83	188.73	2.93	6.64	0.25	104.87
Last 5	10:48:54	3599.97	18.26	4.88	189.90	2.88	6.46	0.24	102.60
Last 5	10:53:54	3899.97	18.42	4.90	190.52	2.63	6.46	0.22	101.59
Variance 0			-0.04	-0.09	-0.19			-0.00	5.10
Variance 1			0.05	0.05	1.17			-0.01	-2.27
Variance 2			0.16	0.02	0.62			-0.01	-1.00

Notes

Started purge at 9:49. Purge 200 ml/min. Weather: sunny ~ 60F Well parameters stable at 1054. Well sample 1100. Sample rate 200 ml/min.

Grab Samples HGWA-2

Sample Time: 1100

Date: 2017-03-21 12:15:44

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name W.Virgo Company Name **ERM**

Project Name GPC - Plant Hammond

Site Name AP 1&2 Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 463068

Turbidity Make/Model

LaMotte 2020 We

Pump placement from TOC

39 ft

Dedicated Bladder

LDPE

45 ft

0.375 in

Well Information:

Well ID HGWA-3 Well diameter 2 in Well Total Depth 44.6 ft Screen Length 10 ft Depth to Water 6.04 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 1.462339 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.48 in **Total Volume Pumped** 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:51:54	1500.97	18.30	6.67	452.46	0.05	6.08	0.09	10.44
Last 5	11:56:54	1800.97	18.32	6.74	451.16	0.06	6.08	0.10	1.08
Last 5	12:01:54	2100.97	18.34	6.84	452.29	0.24	6.08	0.10	-10.19
Last 5	12:06:54	2400.97	18.39	6.80	451.23	0.04	6.08	0.09	-12.12
Last 5	12:11:54	2700.97	18.36	6.83	450.30	0.04	6.08	0.09	-17.36
Variance 0			0.02	0.10	1.13			0.00	-11.27
Variance 1			0.05	-0.04	-1.06			-0.00	-1.93
Variance 2			-0.03	0.04	-0.93			-0.00	-5.24

Notes

Started Purging well @ 11:27 purge rate: 200 ml/min. Weather sunny ~ 60F Well parameters stable at 12:12. Well sampled at 12:17. Sample rate: 200ml/min.

Grab Samples HGWA-3

Sample time 12:17

Date: 2017-03-21 12:07:47

Project Information:

Operator Name M. Burch Company Name **ERM**

Project Name **GPC-Plant Hammond**

Site Name AP 1&2 Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 457516

Turbidity Make/Model LaMotte 2020we

Well Information:

Well ID HWGA-4 Well diameter 2 in Well Total Depth 25.17 ft Screen Length 10 ft Depth to Water 5.41 ft

Pump Information:

Pump Model/Type **Dedicated Bladder**

20 ft

Tubing Type LDPE Tubing Diameter 0.375 in Tubing Length 30 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 1.136559 L Calculated Sample Rate 300 sec Stabilization Drawdown 6.84 in **Total Volume Pumped** 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:45:36	1799.92	17.38	5.97	191.10	3.11	5.99	0.33	80.11
Last 5	11:50:36	2099.93	17.56	6.03	206.30	2.77	5.98	0.29	80.22
Last 5	11:55:36	2399.93	17.59	6.03	210.45	2.27	5.98	0.30	79.95
Last 5	12:00:36	2699.93	17.59	6.04	214.53	2.11	5.98	0.30	79.83
Last 5	12:05:36	2999.93	17.59	6.07	220.33	2.02	5.98	0.32	80.40
Variance 0			0.04	0.01	4.16			0.01	-0.27
Variance 1			-0.01	0.01	4.08			0.00	-0.13
Variance 2			0.00	0.03	5.80			0.02	0.57

Notes

Started Purging at 1115 at 200mL/min Finish Purging at 1205 at 200mL/min

Grab Samples HGWA-4 Grabbed Sample at 1210 at 200mL/min

Date: 2017-03-21 14:04:04

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Burch Company Name **ERM**

Project Name **GPC-Plant Hammond**

Site Name AP 1&2 Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 457516

Turbidity Make/Model LaMotte 2020we Pump placement from TOC

35 ft

Dedicated Bladder

LDPE

45 ft

0.375 in

Well Information:

Well ID HGWA-5 Well diameter 2 in Well Total Depth 50 ft Screen Length 10 ft Depth to Water 5.32 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 1.462339 L Calculated Sample Rate 300 sec Stabilization Drawdown 15.96 in **Total Volume Pumped** 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:41:00	1499.95	18.08	6.56	253.20	8.12	6.55	0.20	4.74
Last 5	13:46:00	1799.95	18.10	6.56	253.60	5.47	6.61	0.17	1.55
Last 5	13:51:00	2099.95	18.12	6.56	253.54	4.61	6.62	0.21	-0.45
Last 5	13:56:00	2399.95	18.17	6.56	251.59	3.32	6.65	0.23	-2.27
Last 5	14:01:00	2699.95	18.17	6.55	251.48	3.17	6.65	0.23	-3.71
Variance 0			0.02	-0.00	-0.06			0.04	-2.00
Variance 1			0.05	-0.00	-1.95			0.02	-1.82
Variance 2			0.00	-0.00	-0.11			-0.01	-1.44

Notes

Starting Purging at 1315 at 200mL/min Stopped Purging at 1400 @200mL/min

Grab Samples HGWA-5 Grabbed Sample at 1405 at 200mL/min

Date: 2017-03-21 15:02:13

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Burch Company Name ERM

Project Name GPC-Plant Hammond

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516

Turbidity Make/Model LaMotte 2020we

LaMotte 2020we Pump placement from TOC

Well Information:

Well ID HGWA-6
Well diameter 2 in
Well Total Depth 50 ft
Screen Length 10 ft
Depth to Water 5.14 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.679525 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.32 in
Total Volume Pumped 6 L

Dedicated Bladder

LDPE

55 ft

45 ft

0.375 in

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:40:24	599.93	19.51	7.39	374.26	0.84	5.68	1.91	-49.27
Last 5	14:45:24	899.93	19.26	7.40	376.40	0.93	5.87	1.04	-51.46
Last 5	14:50:24	1199.93	19.19	7.40	376.29	0.84	5.96	0.80	-53.88
Last 5	14:55:24	1499.93	19.24	7.40	376.79	1.18	5.98	0.70	-56.59
Last 5	15:00:24	1799.93	19.09	7.40	375.34	1.80	6.00	0.51	-59.63
Variance 0			-0.07	0.00	-0.11			-0.24	-2.42
Variance 1			0.05	0.00	0.49			-0.10	-2.72
Variance 2			-0.15	-0.00	-1.44			-0.19	-3.03

Notes

Starting Purging at 1430 at 200mL/min Finish Purging at 1500 at 200mL/min

Grab Samples HGWA-6 Grabbed Sample at 1505 at 200mL/min

Date: 2017-03-21 14:02:50

Dedicated Bladder

Project Information:

Operator Name

W.Virgo

Pump Information:

Pump Model/Type

Company Name ERM Tubing Type LDPE
Project Name GPC - Plant Hammond Tubing Diameter 0.375 in
Site Name AP 1&2 Tubing Length 32 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 501336

Turbidity Make/Model LaMotte 2020 We Pump placement from TOC 24 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-7 200 mL/min Well diameter Total System Volume 1.179997 L 2 in Well Total Depth 29.8 ft Calculated Sample Rate 300 sec Screen Length 10 ft Stabilization Drawdown 2.88 in Depth to Water 4.25 ft **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	pH SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:38:53	300.06	18.92	7.12	675.51	0.95	4.48	0.22	42.63
Last 5	13:43:53	600.03	18.89	7.13	671.95	1.89	4.52	0.16	40.02
Last 5	13:48:53	900.02	18.96	7.12	659.72	2.02	4.53	0.16	38.34
Last 5	13:53:54	1200.95	18.92	7.12	657.71	1.79	4.53	0.15	37.45
Last 5	13:58:54	1500.96	18.93	7.12	651.27	2.01	4.49	0.15	36.59
Variance 0			0.07	-0.01	-12.23			0.01	-1.68
Variance 1			-0.04	-0.00	-2.01			-0.02	-0.89
Variance 2			0.02	-0.00	-6.44			-0.00	-0.86

Notes

Weather is sunny, 70 F. Started purge at 1334. Purge rate: 200ml/min.

Well parameters stable at 13:59. Well sampled at 14:05. Well sample rate: 200ml/min.

Grab Samples

Date: 2017-03-21 15:18:22

Project Information:

Operator Name W.Virgo Company Name **ERM**

Project Name GPC - Plant Hammond

Site Name AP 1&2 Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 501336

Turbidity Make/Model

LaMotte 2020 We

Well Information:

Well ID HGWC-8 Well diameter 2 in Well Total Depth 24.7 ft Screen Length 10 ft Depth to Water 3.53 ft

Pump Information:

Pump Model/Type **Dedicated Bladder**

19 ft

Tubing Type LDPE Tubing Diameter 0.375 in Tubing Length 30 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 1.136559 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.36 in **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:54:03	300.11	18.96	6.87	993.95	0.50	3.51	0.25	68.26
Last 5	14:59:03	600.02	18.92	6.87	1016.00	0.10	3.46	0.21	64.67
Last 5	15:04:03	900.02	18.97	6.87	954.53	0.23	3.50	0.21	61.47
Last 5	15:09:03	1200.02	18.97	6.87	987.90	0.21	3.50	0.21	58.43
Last 5	15:14:03	1500.02	18.98	6.87	966.44	0.18	3.50	0.22	57.84
Variance 0			0.05	-0.00	-61.47			-0.00	-3.21
Variance 1			0.00	-0.00	33.37			0.00	-3.03
Variance 2			0.01	0.00	-21.46			0.01	-0.59

Notes

Weather: sunny 70 F. Purge rate: 200ml/min. Start purge time: 2:49.

All parameters stable at 1514. Well sampled at 1520. Sample rate 200ml/min.

Grab Samples HGWC-8

Sample time 1520

Date: 2017-03-22 09:24:38

Project Information:

Operator Name M. Burch Company Name **ERM**

Project Name **GPC-Plant Hammond** Site Name AP 1&2

Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 501336

Turbidity Make/Model LaMotte 2020we

Well Information:

Well ID HGWC-9 Well diameter 2 in Well Total Depth 46.6 ft Screen Length 10 ft Depth to Water 13.49 ft

Pump Information:

Pump Model/Type **Dedicated Bladder**

Tubing Type LDPE Tubing Diameter 0.375 in Tubing Length 46 ft

Pump placement from TOC

41 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 1.484058 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.6 in **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization	1		+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:02:48	300.10	17.62	6.99	1152.74	0.15	13.54	0.12	39.85
Last 5	09:07:48	600.03	17.63	7.00	1153.26	0.37	13.56	0.09	34.71
Last 5	09:12:48	900.03	17.63	7.01	1152.36	0.52	13.53	0.08	31.36
Last 5	09:17:48	1200.03	17.63	7.02	1153.73	0.70	13.54	0.08	28.52
Last 5	09:22:48	1500.03	17.63	7.03	1156.20	0.90	13.54	0.08	25.96
Variance 0			-0.00	0.01	-0.90			-0.01	-3.34
Variance 1			0.00	0.01	1.37			-0.00	-2.85
Variance 2			0.00	0.01	2.47			-0.00	-2.56

Notes

Starting Purge at 0858 at 200mL/min Finish Purging at 0923 at 200mL/min

Grab Samples HGWC-9

Grabbed Sample at 0928 and Dup-1

Date: 2017-03-22 11:02:18

Alexis Peristaltic

Project Information:		Pump Information:
Operator Name	T.Thomas	Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter0.17 inSite NameAP 1&2Tubing Length27 ft

Latitude 0° 0′ 0″

Longitude 0° 0′ 0″

Sonde SN 457516

Turbidity Make/Model LaMotte 2020 We Pump placement from TOC 17 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-10 200 mL/min Total System Volume Well diameter 0.4605124 L 2 in Calculated Sample Rate Well Total Depth 22.60 ft 300 sec Screen Length Stabilization Drawdown 10 ft 1.2 in Depth to Water 13.20 ft **Total Volume Pumped** 20.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:20:13	3304.99	17.45	6.67	969.74			0.10	46.70
Last 5	10:25:13	3604.97	17.07	6.67	982.63			0.51	46.88
Last 5	10:30:13	3904.96	17.05	6.66	982.52	0.65	13.30	0.18	46.67
Last 5	10:35:13	4204.97	17.28	6.66	980.41	0.64	13.30	0.14	46.32
Last 5	10:40:13	4504.96	17.14	6.66	979.62	0.72	13.30	0.11	46.20
Variance 0			-0.02	-0.01	-0.11			-0.32	-0.22
Variance 1			0.23	0.00	-2.11			-0.05	-0.34
Variance 2			-0.14	0.00	-0.79			-0.03	-0.12

Notes

Due to initial depth to water 3 well volume method is required. 1 well volume = 5.8 liters. Purge rate at 500 ml/min 12 minutes per volume. Start purge at 9:25.

Due to initial depth to water 3 well volume method required. 1 well volume = 5.8 liters. Purge rate at 350 ml/min 17 min per volume. Purge rate changed to 200 ml/ min @ 10:15. Problem with pump occurred at 10:20. Purge resumed at 10:23 @ 200 ml/ min. Parameters stable at 10:40. Well sampled at 10:50.

Grab Samples HGWC-10 Well sampled at 10:50 DUP-2

Date: 2017-03-22 12:24:15

Project Information:

Operator Name T.Thomas Company Name **ERM**

Project Name GPC - Plant Hammond Site Name AP 1&2 00 0' 0"

Latitude 00 0' 0" Longitude Sonde SN 457516

Turbidity Make/Model LaMotte 2020 We

Well Information:

Well ID HGWC-11 Well diameter 2 in Well Total Depth 25.99 ft Screen Length 10 ft Depth to Water 14.90 ft

Pump Information:

Pump Model/Type Alexis Peristaltic

Tubing Type LDPE Tubing Diameter 0.17 in Tubing Length 30 ft

Pump placement from TOC

21 ft

Pumping Information:

Final Pumping Rate 100 mL/min Total System Volume 0.4739027 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.96 in **Total Volume Pumped** 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:58:01	600.01	17.26	5.75	818.52	1.57	14.98	4.38	49.76
Last 5	12:03:01	900.01	17.32	5.75	820.66	1.76	14.98	4.28	50.90
Last 5	12:08:01	1200.01	17.14	5.77	824.79	1.79	14.98	4.16	51.97
Last 5	12:13:01	1500.01	17.34	5.78	825.75	1.89	14.98	4.06	52.52
Last 5	12:18:01	1800.01	17.51	5.81	830.11	1.48	14.98	3.80	53.46
Variance 0			-0.18	0.02	4.13			-0.12	1.07
Variance 1			0.20	0.01	0.96			-0.09	0.55
Variance 2			0.18	0.03	4.35			-0.26	0.94

Notes

Weather- overcast 50 F. Purge rate @ 100 ml/min. Purge start time 11:48. Parameters stable at 1218. Well sampled at 1225. Sample rate 100 ml/ min.

Grab Samples HGWC-11

Well sampled at 1225

Date: 2017-03-22 10:33:47

Project Information:

Operator Name M. Burch Company Name ERM

Project Name GPC-Plant Hammond Site Name AP 1&2

Latitude 0° 0′ 0″

Longitude 0° 0′ 0″

Sonde SN 501336

Turbidity Make/Model LaMotte 2020we

Turbidity Make/Model Lawotte 2020we

Well Information:

Well ID HGWC-12
Well diameter 2 in
Well Total Depth 35.1 ft
Screen Length 10 ft
Depth to Water 14.97 ft

Pump Information:

Pump Model/Type Dedicated Bladder

30 ft

Tubing TypeLDPETubing Diameter0.375 inTubing Length35 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.245153 L
Calculated Sample Rate 300 sec
Stabilization Drawdown
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:10:17	300.11	18.16	7.08	1128.21	0.90	15.53	1.30	40.82
Last 5	10:15:17	600.03	19.05	7.07	1097.38	0.27	15.50	0.09	42.99
Last 5	10:20:17	900.03	19.14	7.07	1097.26	0.17	15.50	0.08	38.74
Last 5	10:25:17	1200.03	19.13	7.07	1097.33	0.22	15.51	0.07	35.04
Last 5	10:30:17	1500.03	19.12	7.08	1097.48	0.21	15.51	0.07	31.88
Variance 0			0.09	0.00	-0.12			-0.02	-4.25
Variance 1			-0.00	0.00	0.07			-0.01	-3.70
Variance 2			-0.02	0.00	0.15			-0.01	-3.16

Notes

Starting Purge at 1005 at 200mL/min Finish Purging at 1030 at 200mL/min

Grab Samples HGWC-12

Grabbed Sample at 1035 and 2nd Rad both at 200mL/min

Date: 2017-03-22 14:31:20

Project Information:

Operator Name T.Thomas
Company Name ERM

Project Name GPC - Plant Hammond

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 457516

Turbidity Make/Model LaMotte 2020 We

Pump Information:

Pump placement from TOC

Pump Model/Type Dedicated Bladder

39 ft

Tubing TypeLDPETubing Diameter0.375 inTubing Length50 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-13 200 mL/min Total System Volume 1.570932 L Well diameter 2 in 44.6 ft Calculated Sample Rate Well Total Depth 300 sec Screen Length Stabilization Drawdown 0.84 in 10 ft Depth to Water 18.32 ft **Total Volume Pumped** 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:05:18	1500.01	20.61	7.10	630.42	7.98	18.39	0.12	18.47
Last 5	14:10:18	1800.01	20.65	7.11	629.96	4.67	18.39	0.12	13.69
Last 5	14:15:18	2100.01	20.66	7.12	630.06	4.75	18.39	0.11	9.10
Last 5	14:20:18	2400.01	20.59	7.12	630.61	4.70	18.39	0.11	4.63
Last 5	14:25:18	2700.01	20.57	7.13	629.92	3.46	18.39	0.11	0.08
Variance 0			0.01	0.01	0.10			-0.00	-4.59
Variance 1			-0.07	0.01	0.55			-0.00	-4.47
Variance 2			-0.02	0.01	-0.69			-0.00	-4.55

Notes

Weather - partly cloudy 55 F. Purge rate @ 200 ml/min. Purge started at 1340. Parameters stable at 1425. Purge rate at 200 ml/min. Well sampled at 1430. Sample rate at 200 ml/min.

Grab Samples HGWC-13

Well sampled at 1430

Date: 2017-03-23 09:36:22

Pump Information:

Dedicated Bladder

Project Information:

Operator Name T.Thomas Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter0.375 inSite NameAP 1&2Tubing Length48.0 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 457516

Turbidity Make/Model LaMotte 2020 We Pump placement from TOC 38.0 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-14 200 mL/min Total System Volume 1.527495 L Well diameter 2 in Calculated Sample Rate Well Total Depth 43.0 ft 300 sec Screen Length 10 ft Stabilization Drawdown 0.72 in Depth to Water 24.03 ft **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:11:01	300.11	19.77	4.53	3515.27	1.93	24.09	0.35	145.94
Last 5	09:16:01	600.02	19.00	4.54	3572.14	1.55	24.09	0.26	144.32
Last 5	09:21:01	899.99	19.18	4.55	3553.75	1.19	24.09	0.21	143.47
Last 5	09:26:01	1199.99	19.16	4.56	3554.96	1.10	24.09	0.21	141.49
Last 5	09:31:01	1499.99	19.47	4.57	3567.71	1.06	24.09	0.20	139.81
Variance 0			0.18	0.01	-18.39			-0.05	-0.85
Variance 1			-0.02	0.01	1.20			0.00	-1.98
Variance 2			0.31	0.00	12.75			-0.01	-1.68

Notes

Weather- partly cloudy 55F. Purge rate at 200 ml/min. Start purge at 9:06. Parameters stable at 9:31. Purge rate 200 ml/min. Well sampled at 9:35. Sample rate 200 ml/min.

Grab Samples HGWC-14

Well sampled at 09:35

Date: 2017-03-23 11:28:29

Dedicated Bladder

Project Information: Pump Information: **Operator Name** T.Thomas Pump Model/Type

Company Name **Tubing Type LDPE** ERM Project Name Tubing Diameter 0.375 in GPC - Plant Hammond Tubing Length Site Name AP 1&2 43.00 ft

Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 457516

Pump placement from TOC Turbidity Make/Model LaMotte 2020 We 33.00 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-15 200 mL/min Total System Volume Well diameter 1.418902 L 2 in Calculated Sample Rate Well Total Depth 38.00 ft 300 sec Screen Length Stabilization Drawdown 12.48 in 10 ft

Depth to Water 15.95 ft **Total Volume Pumped** 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	apsed Temp C pH		SpCond µS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:55:13	899.98	18.30	5.92	1731.37	0.65	16.99	1.05	118.78
Last 5	11:00:13	1199.97	18.35	5.89	1741.56	0.71	16.99	0.63	107.78
Last 5	11:10:20	1806.98	18.37	5.83	1761.37	0.68	16.99	0.28	96.82
Last 5	11:15:20	2106.98	18.39	5.81	1761.54	0.65	16.99	0.21	93.59
Last 5	11:20:20	2406.98	18.44	5.79	1756.48	0.61	16.99	0.17	91.32
Variance 0			0.03	-0.06	19.80			-0.35	-10.96
Variance 1			0.02	-0.02	0.18			-0.07	-3.22
Variance 2			0.04	-0.02	-5.06			-0.04	-2.28

Notes

Weather- sunny and partly cloudy, 55F. Purge started at 10:40. Purge rate at 200 ml/min.

Parameters stable at 1120. SmarTROLL missed one reading at 1105. Purge rate at 200 ml/min. Well sampled at 1125. Sample rate at 200 ml/min.

Grab Samples HGWC-15

Well sampled at 1125

Date: 2017-03-22 12:08:23

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Burch Company Name ERM

Project Name GPC-Plant Hammond

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336

Turbidity Make/Model LaMotte 2020we

2020we Pump placement from TOC

Well Information:

Well ID HGWC-16
Well diameter 2 in
Well Total Depth 33 ft
Screen Length 10 ft
Depth to Water 11.93 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.201715 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 26.28 in
Total Volume Pumped 6 L

Dedicated Bladder

LDPE

33 ft

28 ft

0.375 in

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН			DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:45:02	600.03	18.29	7.14	882.39	13.90	13.95	0.07	-71.41
Last 5	11:50:02	900.03	18.33	7.15	882.81	10.76	13.99	0.07	-71.93
Last 5	11:55:02	1200.03	18.34	7.15	883.31	4.54	14.12	0.07	-71.73
Last 5	12:00:02	1499.93	18.34	7.15	882.05	3.09	14.12	0.07	-71.91
Last 5	12:05:02	1799.93	18.33	7.15	883.48	3.40	14.12	0.07	-71.29
Variance 0			0.01	0.00	0.50			0.00	0.20
Variance 1			-0.00	0.00	-1.26			0.00	-0.18
Variance 2			-0.00	-0.00	1.43			0.00	0.62

Notes

Starting Purge at 1135 at 200mL/min Finish Purging at 1205 @200mL/min

Grab Samples HGWC-16

Grabbed Sample at 1210 at 200mL/min

Date: 2017-03-22 14:51:58

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name M. Burch Company Name ERM

Project Name GPC-Plant Hammond Site Name AP 1&2

Latitude 0° 0′ 0″

Longitude 0° 0′ 0″

Sonde SN 501336

Turbidity Make/Model LaMotte 2020we

Motte 2020we Pump placement from TOC

Well Information:

Well ID HGWC-17
Well diameter 2 in
Well Total Depth 27.8 ft
Screen Length 10 ft
Depth to Water 17.45 ft

Pumping Information:

Final Pumping Rate 0.5 mL/min
Total System Volume 1.071403 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.16 in
Total Volume Pumped 32.3 L

Dedicated Bladder

LDPE

27 ft

22 ft

0.375 in

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:28:26	5699.89	18.60	6.25	1399.19	7.52	18.12	0.17	67.70
Last 5	14:33:26	5999.90	18.59	6.25	1395.69	5.11	18.12	0.16	71.40
Last 5	14:38:26	6299.87	18.55	6.25	1397.52	3.91	18.13	0.17	75.65
Last 5	14:43:26	6599.87	18.53	6.25	1395.40	4.23	18.30	0.17	80.91
Last 5	14:48:26	6899.87	18.51	6.25	1395.15	4.48	18.13	0.16	77.48
Variance 0			-0.04	-0.00	1.83			0.01	4.25
Variance 1			-0.02	0.00	-2.12			0.00	5.26
Variance 2			-0.02	-0.00	-0.25			-0.01	-3.43

Notes

3 WV Method starting Purge at 500mL/min at 1254 Finish Purging at 1449 at 200mL/min

Grab Samples HGWC-17

Grabbed Sample at 1454 at 200mL/min

Date: 2017-03-23 10:23:31

Project Information:

Operator Name M. Burch Company Name **ERM**

Project Name **GPC-Plant Hammond** Site Name AP 1&2

Latitude 00 0' 0" Longitude 00 0' 0" Sonde SN 501336

Turbidity Make/Model LaMotte 2020we

Well Information:

Well ID HGWC-18 Well diameter 2 in Well Total Depth 27.7 ft Screen Length 10 ft Depth to Water 17.84 ft

Pump Information:

Pump Model/Type **Dedicated Bladder**

22 ft

Tubing Type LDPE Tubing Diameter 0.375 in Tubing Length 27 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 0.5 mL/min Total System Volume 1.071403 L Calculated Sample Rate 300 sec Stabilization Drawdown 1.69 in **Total Volume Pumped** 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:00:35	3899.95	16.28	4.64	2446.77	12.80	18.10	0.61	268.42
Last 5	10:05:35	4199.95	16.37	4.63	2444.74	6.94	17.99	0.73	272.21
Last 5	10:10:35	4499.95	16.37	4.63	2444.02	4.11	17.99	0.75	275.15
Last 5	10:15:35	4799.93	16.50	4.64	2440.22	3.17	17.98	0.75	279.52
Last 5	10:20:35	5099.93	16.64	4.63	2442.17	2.36	17.98	0.73	281.47
Variance 0			0.00	-0.00	-0.72			0.02	2.94
Variance 1			0.12	0.01	-3.80			-0.01	4.37
Variance 2			0.14	-0.01	1.95			-0.01	1.94

Notes

Starting Purge at 0855 at 500mL/min (3WV) Finish Purging at 1020 at 200mL/min

Grab Samples HGWC-18

Grabbed Sample at 1025 at 200mL/min

Date: 2017-05-22 13:20:52

Dedicated Bladder

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter.375 inSite NameAP 1&2Tubing Length23 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 365491

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 27.6 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWA-1 250 mL/min Well diameter Total System Volume 2 in 0.9845288 L Well Total Depth 32.6 ft Calculated Sample Rate 300 sec Screen Length 10 ft Stabilization Drawdown 13 in Depth to Water 15.93 ft **Total Volume Pumped** 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 10
Last 5	12:50:25	300.15	17.70	7.14	629.76	1.61	17.04	0.41	-80.26
Last 5	12:55:25	600.07	17.49	7.14	628.86	0.99	17.04	0.28	-81.39
Last 5	13:00:25	900.07	17.45	7.13	621.45	0.84	17.04	0.20	-83.02
Last 5	13:05:25	1200.07	17.39	7.12	612.46	0.72	17.04	0.21	-83.02
Last 5	13:10:25	1500.11	17.36	7.11	606.09	0.72	17.04	0.19	-82.40
Variance 0			-0.05	-0.01	-7.41			-0.08	-1.63
Variance 1			-0.06	-0.01	-8.99			0.01	-0.00
Variance 2			-0.03	-0.01	-6.36			-0.02	0.62

Notes

1245 start purge at 250mL/min; 1310 all parameters stable; 1315 sampled at 250mL/min. 75F Mostly Cloudy, very light drizzle.

Grab Samples HGWA-1

Date: 2017-05-22 14:19:52

Project Information:

Well Information:

Operator Name Markevious Thomas

Company Name **ERM** Project Name GPC - Plant Hammond

Site Name AP 1&2 Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 365491

Turbidity Make/Model LaMotte 2020we

Well ID HGWA-2 Well diameter 2 in Well Total Depth 27.9 ft Screen Length 10 ft Depth to Water 7.16 ft

Pump Information:

Pump Model/Type **Dedicated Bladder**

Tubing Type Teflon Tubing Diameter .375 in Tubing Length 24 ft

Pump placement from TOC

22.9 ft

Pumping Information:

Final Pumping Rate 250 mL/min Total System Volume 1.006248 L Calculated Sample Rate 300 sec Stabilization Drawdown 2 in **Total Volume Pumped** 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:55:35	600.03	18.47	5.30	180.50	12.12	7.31	0.13	-37.86
Last 5	14:00:35	900.03	18.61	5.24	180.67	7.38	7.28	0.10	-50.56
Last 5	14:05:35	1200.04	18.56	5.22	180.94	4.59	7.28	0.11	-59.57
Last 5	14:10:35	1500.03	18.54	5.21	180.82	4.01	7.28	0.10	-66.19
Last 5	14:15:35	1800.03	18.54	5.20	180.38	3.25	7.28	0.10	-70.86
Variance 0			-0.05	-0.02	0.27			0.00	-9.01
Variance 1			-0.02	-0.01	-0.12			-0.00	-6.61
Variance 2			0.00	-0.01	-0.44			-0.00	-4.68

Notes

1345 start purge at 250mL/min; 1355 high NTUs, adjust throttle; 1415 all parameters stable; 1420 sampled at 250mL/min. 76F Mostly Cloudy

Grab Samples HGWA-2

ERM					GROUNDWA	ATER SAMP	LING LOG S	HEET		
Client:			GPC	`	_	Project No.:	037	72394		Sampling Date: 5-22-17
Site:		Plant Hammond , C	coosa GA			Location	P 182 AP 384 H	luffaker LF (circle or		Sampler's Name: Markeyous Thomas
Well ID:		46604-	3		Pump Type/Model:				Sam	ple Collection Time: /5/0
Total Depth (ft)1:		19.6			Tubing Material:		,		Sample Pu	urge Rate (mL/min) ³ : 450
Depth to Water (ft):		6.92		Pun	np Intake Depth (ft):	211				Sample ID: 4640A-3
Well Diameter (in):		1		•	rt/Stop Purge Time:	-	505		L	Metals App. III & IV (EPA 6020/7470), CI, F, SO, & TDS (EPA 300.0 aboratory Analyses: & SM 2540C), Radium 226 & 228 (SW-846 9315/9320)
Well Volume (gal) = 0	0.041d ² h:				rge Rate (mL/min) ² :					
Well Volume (L) = ga				•	Il Purge Volume (L):					
d = well diameter (inc		ater column (feet)		•)		Low-Flow We	Il Volume Other	: -		QA/QC Collected?
Well Type:	Flush	Stick Up			Sampling Methods					QA/QC I.D.
Well Lock:	Yes	No.			Camping Monica.	T dilip bloomargo	outor.			
Well Bolted:	Yes	No	Bolts Needed:							* · ·
	Good	Replace	Other		-		All sample contain	are regulring chemical	preservation prope	rly preserved prior to demob from well? Yes No
Well Tag Present:	Yes	No No	Water in Vault:	Yes	No	•	All sample contain	ors requiring enemical	preservation prope	ny preserved prior to demos non went.
Time	Temp.	Spec. Cond. (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H₂O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, Issues with pump/well/weather/etc.)
1105	19.111	430.15	0.52	667	-70.00	0.79	250	1.25	6.92	
1050	12 90	031 13	0.30	6.67	-22.00	045	150	115	1.01	
1955	14.43	136.21	0.00	6.95	-4340	0.31	250	1.25	6.93	
1500	18.78	1121 01	0.15	1.99	-29.10	0.36	250	1.25	6.93	
1505	14.70	136.58	611	IDL	-93 00	130	251)	115	6.93	,
1505	18.70	436.50	0.12	1111	13.60	2.70	250	1.65	(0.1)	
	+	-	 	110 F	Tuning !	3-47-	-			
		-		77	10374 (1	VIII	/			
	-		-	70/4	Tepla.	& Measur	ec .	 		
				Mah	- Lo Thom		+			
					-		-	-		
					-		 			
							-			
					1					
	,									,
							100			
Stabilizing Criteria ^{4, 5}		+/- 5%	0.2 mg/L or 10% whichever is greater (5)	+/- 0.1 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	
(1) - Maximum purge r (2) - Sample rate to be (3) - Collect sample fro	between 100 mL/min	and 250 mL/min	ample container							Purge Log QA/QC'd By: Date:
(4) - Field parameter n (5) - Stabilization crite	neasurements to be re- ria based on three mos	corded every 3 to 5 minut it recent consecutive mea ites. Well drawdown to b	tes. asurements.	e/sampling rate to be	lowered as necessary t	to keep drawdown bel	ow 0.33 ft.			Purge Log QA/QC'd By: Date:

(8) - Preserve all samples as appropriate immediately following collection (9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed

(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.

ERM

Date: 2017-05-23 09:59:18

Dedicated Bladder

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter.375 inSite NameAP 1&2Tubing Length24 ft

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 20.7 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWA-4 250 mL/min Well diameter Total System Volume 1.006248 L 2 in Well Total Depth 25.7 ft Calculated Sample Rate 300 sec Screen Length 10 ft Stabilization Drawdown 3 in Depth to Water 6.57 ft **Total Volume Pumped** 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:15:40	300.16	18.16	6.50	234.64	2.20	5.88	0.48	-57.84
Last 5	09:20:40	600.04	18.11	6.31	262.19	2.27	5.88	0.19	-67.04
Last 5	09:25:40	900.04	18.14	6.28	280.77	2.01	5.88	0.14	-73.01
Last 5	09:30:40	1200.04	18.16	6.28	286.32	1.99	5.88	0.13	-76.83
Last 5	09:35:40	1500.04	18.16	6.28	290.43	2.19	5.88	0.13	-79.40
Variance 0			0.03	-0.03	18.58			-0.05	-5.98
Variance 1			0.02	-0.00	5.55			-0.01	-3.82
Variance 2			0.00	-0.00	4.11			-0.00	-2.57

Notes

0910 start purge at 250mL/min; 0935 all parameters stable; 0940 sampled at 250mL/min. 67F Overcast, Light drizzle

Grab Samples HGWA-4 Sampled at 0940

Date: 2017-05-23 09:50:18

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name GPC-Plant Hammond

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 513028

Turbidity Make/Model LaMotte 2020we

Pump placement from TOC

22 ft

LDPE

.17 in

27 ft

Dedicated bladder

Well Information:

Well ID HGWA-5
Well diameter 2 in
Well Total Depth 27.4 ft
Screen Length 10 ft
Depth to Water 6.13 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2105124 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.2 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:28:19	300.09	17.89	6.38	176.02	7.13	6.84	0.51	26.32
Last 5	09:33:19	600.02	17.89	6.46	184.11	6.63	6.90	0.37	20.09
Last 5	09:38:19	900.02	17.90	6.48	188.62	4.93	6.92	0.21	16.96
Last 5	09:43:19	1200.02	17.89	6.49	185.51	4.64	6.95	0.16	16.03
Last 5	09:48:20	1501.02	17.89	6.50	192.97	4.61	6.98	0.16	15.44
Variance 0			0.00	0.03	4.51			-0.16	-3.13
Variance 1			-0.00	0.01	-3.11			-0.05	-0.93
Variance 2			0.00	0.01	7.46			-0.01	-0.60

Notes

Parameters stable. Weather: Raining off and on.

Grab Samples HGWA-5 Sampling at 9:52

Date: 2017-05-23 10:53:48

Pump Information:

Pump Model/Type

Tubing Diameter

Tubing Length

Tubing Type

Project Information:

Operator Name Myles Rogers

Company Name **ERM** Project Name **GPC-Plant Hammond**

Site Name AP 1&2 00 0' 0" Latitude Longitude 00 0' 0" Sonde SN 513028

Turbidity Make/Model LaMotte 2020we Pump placement from TOC

45 ft

Dedicated bladder

LDPE

.17 in

55 ft

200 mL/min

Well Information:

Well ID HGWA-6 Well diameter 2 in Well Total Depth 50.0 ft Screen Length 10 ft Depth to Water 6.02 ft

Pumping Information: Final Pumping Rate Total System Volume

0.3354883 L Calculated Sample Rate 300 sec Stabilization Drawdown 20.16 in **Total Volume Pumped** 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS/cmTurb NTU		DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:31:26	300.03	17.89	7.51	326.86	1.00	7.23	0.59	-71.69
Last 5	10:36:26	600.02	17.90	7.51	334.45	0.67	7.60	0.30	-77.34
Last 5	10:41:26	900.02	17.89	7.52	313.02	1.20	7.63	0.29	-81.48
Last 5	10:46:26	1200.02	17.85	7.53	313.79	1.15	7.67	0.31	-84.51
Last 5	10:51:26	1500.02	17.83	7.53	300.99	1.07	7.70	0.28	-88.09
Variance 0			-0.00	0.02	-21.43			-0.01	-4.15
Variance 1			-0.04	0.01	0.77			0.02	-3.03
Variance 2			-0.02	-0.00	-12.80			-0.03	-3.58

Notes

Parameters stable. Weather: cloudy little rain

Grab Samples HGWA-6 Sampling at 10:55

ERM					GROUNDWA	ATER SAMPL	ING LOG S	HEET		
			GPC			Project No.:	037	2394		Sampling Date: <u>5 - 23 - / 7</u>
Client: Site:		Plant Hammond , 0				10 000		luffaker LF (circle or		Sampler's Name: Moskenows Thomas
Well ID:		46WC			Pump Type/Model:	1//	Black-18		Sam	pple Collection Time: //OO
		29.3		-		Tellar	muce ju			urge Rate (mL/min) ³ : 250
Total Depth (ft)1:		4.0	5.0	— Pum	np Intake Depth (ft):					Sample ID: UGUY-7
Depth to Water (ft):		7.0				1030 /109	55		1	Metala App. III & IV (EPA 602077470), CI, F, SO, & TDS (EPA 300.0 aboratory Analyses: & SM 2540C), Radium 226 & 228 (SW-846 9315/9320)
Well Diameter (in): Well Volume (gal) = 0.	041d ² h·				rge Rate (mL/min) ² :				·	
Well Volume (L) = gal				_	l Purge Volume (L):					
d = well diameter (inch		water column (feet)		_		Low-Flow Well	I Volume Other	:		QA/QC Collected?
		Stick Up				Pump Discharge				QA/QC I.D. DUP-/
Well Type: Well Lock:	Flush	No			Camping moniou.	. Time blooming				- property
	Yes	No	Bolts Needed:							
Well Bolted: C		Replace	Other		-		All sample contains	ers requiring chemical	preservation prope	erly preserved prior to demob from well? (Yes) No
Well Tag Present:	Yes	No	Water in Vault:	Yes	No	-				
Time	Temp.	Spec. Cond. (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H₂O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, Issues with pump/well/weather/etc.)
1035	19.19	649.26	0.91	7.03	-53.10	1.22	250	1.25	4.17	
10/10	19 16	(11,30)	031	チのエ	-64.70	1 18	250	1.25	4.13	
INIC	19 14	1.19.56	0.15	7.86	-74.50	307	250	1.25	4.13	
1000	19 10	14950	0.12	7.08	-2/30	1.55	250	1.25	4.18	
10/5	19.13	690.52	0.11	7.08	-84.60	1.31	150.	1.25	4.13	
1031	19110	610.52	0.//	M	Par le-	111	120	7.70		
				1.407	1/2/10	14-1-1 1 1 1	V Soule			u u
				1.1.1	D. M. 11/2	& Measurel	1			
				11/1	1911-100	- man				
		-		1064	- In-					
					1					
					+					
						-				
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				-	-					
							-			<u> </u>
			_	+		-			-	<u> </u>
					-		-			
						-	-	+		
Stabilizing Criteria ^{4, 5}		+/-	0.2 mg/L or 10 ^s whichever is greater ⁽⁹⁾			<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	

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

Purge Log QA/QC'd By: Date:

Purge Log QA/QC'd By: Date:

Date: 2017-05-23 12:39:02

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Operator NameMarkevious ThomasPump Model/TypeDedicated BladderCompany NameERMTubing TypeTeflonProject NameGPC - Plant HammondTubing Diameter.375 inSite NameAP 1&2Tubing Length20 ft

Site Name AP 1&2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 365491

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 19.7 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-8 250 mL/min Total System Volume Well diameter 2 in 0.9193729 L Calculated Sample Rate Well Total Depth 24.7 ft 300 sec Screen Length 10 ft Stabilization Drawdown 0 in Depth to Water 3.16 ft **Total Volume Pumped** 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:55:11	300.11	19.25	7.04	1078.51	0.67	3.18	0.46	-77.79
Last 5	12:00:11	600.03	19.17	6.95	1083.82	0.53	3.18	0.13	-83.79
Last 5	12:05:11	900.03	19.10	6.91	1082.80	0.33	3.18	0.11	-86.12
Last 5	12:10:11	1200.03	19.05	6.89	1081.72	0.28	3.18	0.10	-87.76
Last 5	12:20:12	1801.03	19.00	6.87	1086.14	0.26	3.18	0.09	-89.54
Variance 0			-0.07	-0.04	-1.02			-0.02	-2.33
Variance 1			-0.05	-0.02	-1.08			-0.01	-1.64
Variance 2			-0.04	-0.02	4.43			-0.01	-1.78

Notes

1150 start purge at 250mL/min; 1215 SmarTroll did not log parameters; 1220 all parameters stable; 1225 sampled at 250mL/min. 69F Mostly

Grab Samples

HGWC-8

Sampled at 1225

FB-1

Date: 2017-05-23 13:55:37

Dedicated Bladder

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

ERM

Tubing Type

Company NameERMTubing TypeTeflonProject NameGPC - Plant HammondTubing Diameter.375 inSite NameAP 1&2Tubing Length43 ft

Latitude 0° 0′ 0″ Longitude 0° 0′ 0″ Sonde SN 365491

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 41.6 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-9 250 mL/min Well diameter Total System Volume 2 in 1.418902 L 46.6 ft Calculated Sample Rate Well Total Depth 300 sec Screen Length 10 ft Stabilization Drawdown 0 in Depth to Water 13.6 ft **Total Volume Pumped** 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:30:39	300.10	19.64	7.29	1208.05	0.25	13.08	1.57	-79.53
Last 5	13:35:39	600.03	19.32	7.14	1216.18	0.23	13.08	0.49	-85.34
Last 5	13:40:39	900.03	19.32	7.09	1217.28	0.60	13.08	0.22	-88.21
Last 5	13:45:39	1200.03	19.23	7.06	1217.02	0.59	13.08	0.16	-91.22
Last 5	13:50:39	1500.02	19.27	7.05	1216.29	0.59	13.08	0.14	-91.63
Variance 0			0.00	-0.05	1.11			-0.27	-2.87
Variance 1			-0.09	-0.03	-0.26			-0.06	-3.02
Variance 2			0.04	-0.01	-0.73			-0.02	-0.41

Notes

1335 start purge at 250mL/min; 1350 all parameters stable; 1355 sampled at 250mL/min. 72F Partly Cloudy, light breeze

Grab Samples HGWC-9 Sampled at 1355 2nd Rad Sampled at 1355

Date: 2017-05-24 10:02:52

Project Information:

Pump Information:

Pump Information:

Operator Name Markevious Thomas Pump Model/Type Alexis Peristaltic Company Name ERM Tubing Type LDPE

Project Name GPC - Plant Hammond Tubing Diameter .17 in Site Name AP 1&2 Tubing Length 20 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 365491

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 17.6 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-10 250 mL/min Total System Volume Well diameter 2 in 0.1792685 L 22.6 ft Calculated Sample Rate Well Total Depth 300 sec Screen Length 10 ft Stabilization Drawdown 2 in Depth to Water 12.36 ft **Total Volume Pumped** 18.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	d Temp C	рН	SpCond µS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:30:07	1200.04	18.30	6.67	980.29	0.25	13.45	0.39	16.63
Last 5	09:35:07	1500.04	18.31	6.67	983.64	0.42	13.45	0.15	8.16
Last 5	09:40:07	1800.04	18.35	6.66	979.06	0.35	13.45	0.15	1.41
Last 5	09:45:07	2100.04	18.38	6.67	978.06	0.36	13.45	0.14	-4.08
Last 5	09:50:07	2400.03	18.57	6.67	994.89	0.28	13.38	0.12	-8.44
Variance 0			0.04	-0.00	-4.59			-0.00	-6.74
Variance 1			0.03	0.00	-1.00			-0.00	-5.49
Variance 2			0.19	-0.00	16.83			-0.02	-4.37

Notes

0910 start purge at 500mL/min; 0945 reduce purge rate to 250mL/min; 0950 3 well volumes purged, all parameters stable; 0955 sampled at 250mL/min. 67F Overcast, light drizzle

Grab Samples HGWC-10

Date: 2017-05-24 11:28:21

Alexis Peristaltic

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Company NameERMTubing TypeLDPEProject NameGPC - Plant HammondTubing Diameter.17 inSite NameAP 1&2Tubing Length24 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 365491

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 21 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-11 250 mL/min Well diameter Total System Volume 0.1971222 L 2 in Well Total Depth 25.99 ft Calculated Sample Rate 300 sec Screen Length 10 ft Stabilization Drawdown 3 in Depth to Water 13.53 ft **Total Volume Pumped** 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:00:15	300.10	18.90	6.53	806.84	5.16	13.71	0.63	3.74
Last 5	11:05:15	600.03	19.36	6.53	803.81	2.31	13.70	0.39	-4.79
Last 5	11:10:15	900.03	19.00	6.54	800.19	2.12	13.68	0.35	-11.74
Last 5	11:15:15	1200.04	18.92	6.53	800.45	1.42	13.66	0.35	-16.36
Last 5	11:20:15	1500.04	18.74	6.51	799.38	2.68	13.67	0.40	-19.15
Variance 0			-0.36	0.01	-3.62			-0.04	-6.95
Variance 1			-0.08	-0.02	0.27			0.00	-4.62
Variance 2			-0.18	-0.01	-1.07			0.05	-2.79

Notes

1100 start purge at 250mL/min; 1120 all parameters stable; 1125 sampled at 250mL/min. 63F Mostly Cloudy, light rain

Grab Samples HGWC-11

Date: 2017-05-24 12:42:19

Dedicated Bladder

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Company NameERMTubing TypeTeflonProject NameGPC - Plant HammondTubing Diameter.375 inSite NameAP 1&2Tubing Length30 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 365491

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 30.1 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-12 250 mL/min Well diameter Total System Volume 1.136559 L 2 in Well Total Depth 35.1 ft Calculated Sample Rate 300 sec Screen Length 10 ft Stabilization Drawdown 0 in Depth to Water 13.53 ft **Total Volume Pumped** 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:10:22	300.09	19.10	6.99	1084.19	0.36	13.54	1.42	-13.71
Last 5	12:15:22	600.03	19.41	7.07	1074.59	0.26	13.54	0.74	-24.30
Last 5	12:20:22	900.03	19.56	7.09	1070.30	0.20	13.54	0.40	-31.32
Last 5	12:25:22	1200.03	19.59	7.10	1069.90	0.26	13.54	0.34	-34.42
Last 5	12:30:22	1500.03	19.63	7.11	1071.61	0.26	13.54	0.30	-36.41
Variance 0			0.15	0.02	-4.28			-0.34	-7.03
Variance 1			0.02	0.01	-0.40			-0.06	-3.10
Variance 2			0.05	0.01	1.71			-0.04	-1.99

Notes

1205 start purge at 250mL/min; 1220 all parameters stable; 1235 sampled at 250mL/min. 64F Mostly Cloudy

Grab Samples HGWC-12

Date: 2017-05-24 11:28:42

Project Information:

Operator Name Myles Rogers

Company Name **ERM** Project Name **GPC-Plant Hammond**

Site Name AP 1&2 00 0' 0" Latitude Longitude 00 0' 0" Sonde SN 513028

Turbidity Make/Model LaMotte 2020we

Well Information:

Well ID HGWC-13 Well diameter 2 in Well Total Depth 44.6 ft Screen Length 10 ft Depth to Water 17.21 ft

Pump Information:

Pump Model/Type Dedicated bladder

39 ft

Tubing Type LDPE Tubing Diameter .17 in Tubing Length 49 ft

Pump placement from TOC

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.3087077 L Calculated Sample Rate 300 sec Stabilization Drawdown 0.84 in **Total Volume Pumped** 9 L

Low-Flow Sampling Stabilization Summary

Time	Elapsed	Temp C	рН	SpCond µS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV	
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:07:21	1500.76	19.41	7.14	556.31	7.00	17.28	0.19	-12.35
Last 5	11:12:21	1800.77	19.40	7.14	561.32	5.13	17.28	0.19	-15.71
Last 5	11:17:21	2100.77	19.36	7.15	559.26	4.88	17.28	0.17	-18.59
Last 5	11:22:21	2400.76	19.33	7.15	563.17	3.40	17.28	0.17	-21.16
Last 5	11:27:21	2700.76	19.28	7.15	563.71	3.53	17.28	0.17	-22.81
Variance 0			-0.04	0.00	-2.06			-0.02	-2.88
Variance 1			-0.03	0.00	3.91			0.00	-2.58
Variance 2			-0.05	0.00	0.54			0.00	-1.64

Notes

Parameters stable. Weather: raining hard.

Grab Samples HGWC-13

Sampling at 11:30

Date: 2017-05-24 14:58:30

Dedicated Bladder

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Company NameERMTubing TypeTeflonProject NameGPC - Plant HammondTubing Diameter.375 inSite NameAP 1&2Tubing Length38 ft

Latitude AP 1&2
Longitude O° 0' 0"
Sonde SN 365491

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 38 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-14 250 mL/min Well diameter Total System Volume 1.310309 L 2 in Well Total Depth Calculated Sample Rate 300 sec 43.0 ft Screen Length 10 ft Stabilization Drawdown 1 in Depth to Water 23.23 ft **Total Volume Pumped** 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:25:04	300.10	21.66	5.62	3429.16	0.28	23.31	2.42	45.30
Last 5	14:30:04	600.03	21.19	4.68	3421.77	1.96	23.31	0.57	79.09
Last 5	14:35:04	900.03	21.10	4.60	3413.80	0.94	23.31	0.28	81.26
Last 5	14:40:04	1200.03	21.10	4.60	3415.24	0.54	23.31	0.23	76.85
Last 5	14:45:04	1500.03	21.04	4.61	3413.98	0.97	23.31	0.20	70.31
Variance 0			-0.09	-0.08	-7.97			-0.29	2.17
Variance 1			-0.00	-0.00	1.43			-0.05	-4.41
Variance 2			-0.06	0.00	-1.26			-0.03	-6.55

Notes

1425 start purge at 250mL/min; 1445 all parameters stable; 1450 sampled at 250mL/min. 68F Partly Cloudy

Grab Samples HGWC-14

Date: 2017-05-24 12:59:54

Project Information:

Operator Name Myles Rogers

Company Name ERM
Project Name GPC-Plant Hammond

Site Name AP 1&2 Latitude 0° 0' 0"

Longitude 0° 0' 0" Sonde SN 513028

Turbidity Make/Model LaMotte 2020we

Well Information:

Well ID HGWC-15
Well diameter 2 in
Well Total Depth 38.00 ft
Screen Length 10 ft
Depth to Water 15.64 ft

Pump Information:

Pump Model/Type Dedicated bladder

Tubing TypeLDPETubing Diameter.17 inTubing Length43.00 ft

Pump placement from TOC 33.00 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.2819272 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.72 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:37:58	600.02	18.97	6.20	1614.62	0.35	16.40	2.64	56.83
Last 5	12:42:58	900.02	18.72	6.19	1599.14	0.22	16.45	2.16	99.80
Last 5	12:47:58	1200.02	18.74	6.11	1473.87	0.18	16.45	1.48	99.24
Last 5	12:52:58	1500.02	18.74	6.06	1463.31	0.06	16.45	1.06	84.88
Last 5	12:57:59	1800.83	18.96	6.01	1474.15	0.20	16.45	0.85	73.92
Variance 0			0.03	-0.07	-125.27			-0.68	-0.56
Variance 1			-0.00	-0.05	-10.56			-0.42	-14.36
Variance 2			0.22	-0.05	10.84			-0.21	-10.95

Notes

Parameters stable. Weather: 13:02

Grab Samples HGWC-15

Sampling at 13:02

Date: 2017-05-24 14:39:07

Project Information:

Operator Name Myles Rogers

Company Name ERM Project Name **GPC-Plant Hammond**

Site Name AP 1&2 Latitude 00 0' 0" 00 0' 0" Longitude Sonde SN 513028

Turbidity Make/Model LaMotte 2020we

Well Information:

Well ID HGWC-16 Well diameter 2 in 33 ft Well Total Depth Screen Length 10 ft Depth to Water 11.07 ft

Pump Information:

Pump Model/Type Dedicated bladder

Tubing Type LDPE Tubing Diameter .17 in Tubing Length 38 ft

Pump placement from TOC 27 ft

Pumping Information:

Final Pumping Rate 200 mL/min Total System Volume 0.2596101 L Calculated Sample Rate 300 sec Stabilization Drawdown 13.2 in **Total Volume Pumped** 20 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond μS	/cmTurb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:16:06	3001.02	18.70	7.10	848.01	11.52	12.69	0.22	-61.81
Last 5	14:21:07	3301.78	18.75	7.11	841.04	13.98	12.51	0.20	-63.02
Last 5	14:26:47	3641.78	18.78	7.11	832.16	6.57	12.46	0.23	-64.41
Last 5	14:31:47	3941.78	19.23	7.09	856.26	4.64	12.31	0.07	-64.33
Last 5	14:36:47	4241.83	19.07	7.11	831.63	3.34	12.16	0.30	-64.86
Variance 0			0.03	0.00	-8.88			0.03	-1.40
Variance 1			0.45	-0.02	24.11			-0.15	0.09
Variance 2			-0.16	0.02	-24.64			0.23	-0.54

Notes

Parameters stable. Orange organic material raised turbidity so I increased purge rate to .5L/min at 14:06 and decreased back to .2L/min at 14:26. Weather: raining off and on

Grab Samples HGWC-16

Sampling at 14:40

Date: 2017-05-25 09:40:32

Dedicated Bladder

Project Information:

Operator Name

Markevious Thomas

Pump Information:

Pump Model/Type

Company NameERMTubing TypeTeflonProject NameGPC - Plant HammondTubing Diameter.375 inSite NameAP 1&2Tubing Length23 ft

Latitude 0° 0' 0"

Longitude 0° 0' 0"

Sonde SN 365491

Turbidity Make/Model LaMotte 2020we Pump placement from TOC 22.8 ft

Well Information: Pumping Information:

Final Pumping Rate Well ID HGWC-17 100 mL/min Well diameter Total System Volume 2 in 0.9845288 L Well Total Depth 27.8 ft Calculated Sample Rate 300 sec Screen Length 10 ft Stabilization Drawdown 3 in Depth to Water 16.6 ft **Total Volume Pumped** 2.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	рН	SpCond µS/	cm Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:10:04	300.19	18.74	6.38	1408.39	0.52	16.78	1.00	1.92
Last 5	09:15:03	600.06	18.82	6.31	1414.13	0.66	16.78	0.55	-9.03
Last 5	09:20:03	900.03	18.76	6.28	1420.26	0.38	16.79	0.38	-15.59
Last 5	09:25:03	1200.03	18.74	6.27	1416.74	0.45	16.79	0.31	-20.19
Last 5	09:30:03	1500.03	18.54	6.27	1418.43	0.44	16.79	0.28	-24.41
Variance 0			-0.06	-0.02	6.13			-0.17	-6.57
Variance 1			-0.02	-0.01	-3.52			-0.07	-4.59
Variance 2			-0.20	-0.00	1.69			-0.03	-4.23

Notes

0905 start purge at 100mL/min; 0930 all parameters stable; 0935 sampled at 100mL/min. 70F Mostly Cloudy, light wind

Grab Samples HGWC-17

ERM					GROUNDW/	ATER SAMP	LING LOG S	HEET		
Client:			GPC			Drolant No.	000			F 2-1-7
Site:		Plant Hammond , C		******	_	Project No.: Location:	_	2394 luffaker LF (circle or		Sampling Date: 5-25-17
Well ID:		HGWC-18			- Pump Type/Model:		Bland	diraker LF (circle or		Sampler's Name: MR mple Collection Time: 9145
Total Depth (ft)1:		27.7		-	Tubing Material:		1) (1-(1))) (Ge :
Depth to Water (ft);		17.12		 Pur	mp Intake Depth (ft):	0.0	4		Sample P	110
Well Diameter (in):		2			art/Stop Purge Time:	G)				Sample ID: 11 (TWC () Metals App. III & IV (EPA 6020/7470), CI, F, SO, & TDS (EPA 300.0) Laboratory Analyses: & SM 25400), Redium 226 & 228 (SW-946 9315/9320)
Well Volume (gal) = 0.	041d ² h:	1,74		_	rge Rate (mL/mln)²:				ì	Laboratory Analyses: & SM 2540C), Redlum 226 & 228 (SW-846 9315/9320)
Well Volume (L) = gal	* 3.785;	(. (2		-	al Purge Volume (L):					
d = well diameter (inch	es) h = length of wa	ter column (feet)	13.2 min		Purge Method:		ll Volume Other:			QA/QC Collected? Yr S
Well Type:	Flush	StickUp	•		Sampling Method:		Other:			avac collected? Yes avac i.d. Extra RAD Batte
Well Lock:	(No			camping weater.	T dilig pischarge	Other.			GAIGC I.D. LX+FR KAD DOM'T
Well Bolted:	Yes	€£	Bolts Needed:	No						
Well Cap Condition:	€ 09d		Other	_	-		All sample contains			
Well Tag Present:	Y(5)	No	Water in Vault:	Yes	Mo		All saliple contains	is requiring chemical	preservation prope	erly preserved prior to demob from well? 🔀 No
Time	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H₂O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, Issues with pump/well/weather/etc.)
854	17.70	2159	0.36	4.60	2957	3.56	500	2006.6	17.56	1 st wv
907	17.76	23083	55.0	21.64	307.8	2.13	4	13,2	77.61	Zndwy
920	18.03	2172.0	6.44	4.68	3217	2.00		19.8	17.60	3rd WV Dec PR +6 .2 Who
926	17.87	2163.9	6.44	4.76	369.1	078	200	708	17.42	JOOV DEC PR FE . ZUM
931	17.83	20625	0.45	41.68	324.0	0.72		21.8	17.42	
936	1803	2105,7	643	-). 69	3253	049		72.8	17:43	
			- 12			<u> </u>		12.0	<u> </u>	
				1						
										·
				<u> </u>						•
									_	
										- C-170
		-							1 a come	
						****				Sampling at 9:40
		· · · · · · · · · · · · · · · · · · ·								
						· · · · · · · · · · · · · · · · · · ·				
			0.0							
Stabilizing Criteria ^{4, 5}		+/- 5%	0.2 mg/L or 10% whichever is greater (*)	+/- 0.1 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	
(1) - Maximum purge rate (2) - Sample rate to be bel (3) - Collect sample from	tween 100 mL/min and pump discharge withou	it tubing contacting sam								Purge Log QA/QC'd By: Date:
(4) - Field parameter mea: (5) - Stabilization criteria b (6) - Monitor depth to wate	pased on three most re er every 3 to 5 minutes.	cent consecutive measu	urements. 0.33 ft or less, Purge	/sampling rate to be lo	wered as necessary to l	keep drawdown below	0.33 ft.			Purge Log QA/QC'd By: Date:

(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Appendix B Statistical Analyses





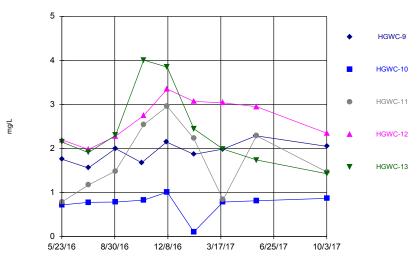
Constituent: Boron Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG

Time Series 200 HGWA-1 (bg) 160 HGWA-2 (bg) HGWA-3 (bg) 120 HGWC-7 80 HGWC-8 40 5/19/16 8/27/16 12/5/16 3/16/17 6/24/17 10/3/17

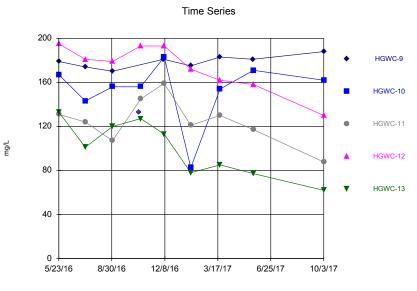
Constituent: Calcium Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

Time Series

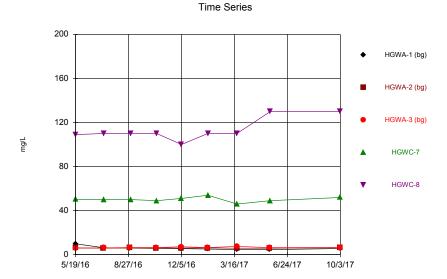


Constituent: Boron Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

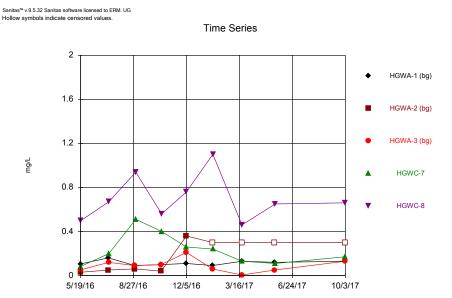
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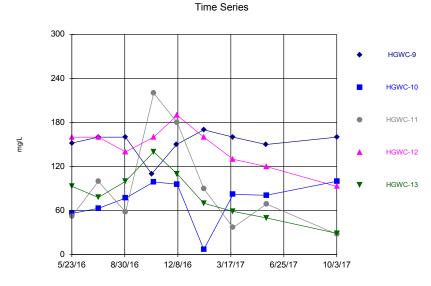
Constituent: Calcium Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125



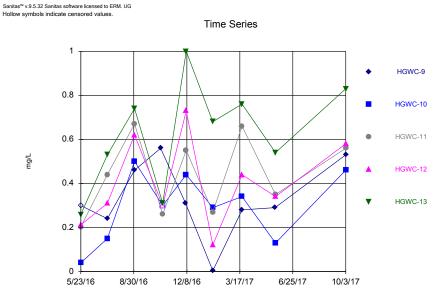
Constituent: Chloride Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125



Constituent: Fluoride Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125



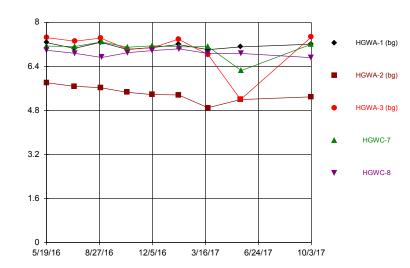
Constituent: Chloride Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125



Constituent: Fluoride Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

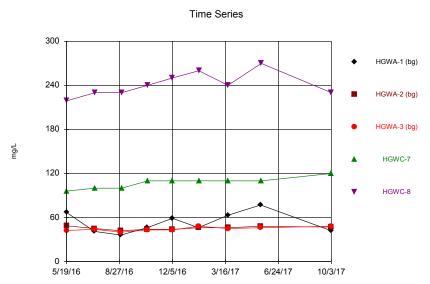
SU





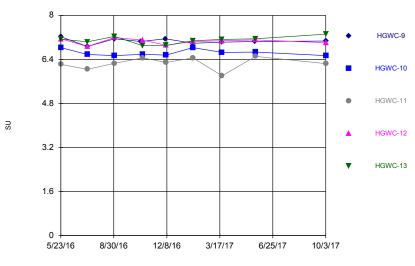
Constituent: pH Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

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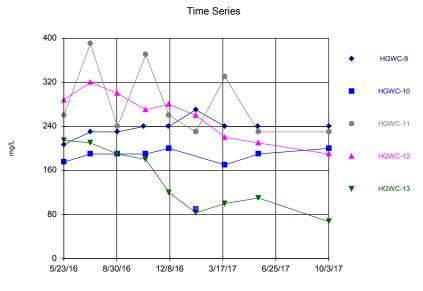
Constituent: Sulfate Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

Time Series



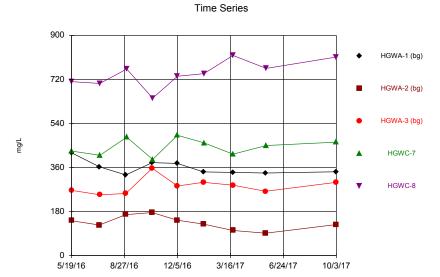
Constituent: pH Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

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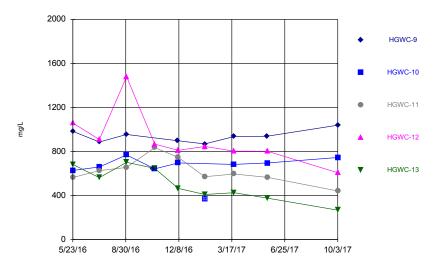
Constituent: Sulfate Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

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Constituent: Total Dissolved Solids Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

Time Series

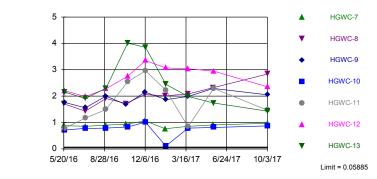


Constituent: Total Dissolved Solids Analysis Run 1/25/2018 6:21 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	PI	ant Hammond	Client: Southern C	ompany Data	a: Hammond A	sh Pond	1 20180	125 Prin	ted 1/25/2018, 6:23	PM	
Constituent	Well	Upper Lim.	Lower Lim.	<u>Date</u>	Observ.	Sig.	Bg N	%NDs	<u>Transform</u>	<u>Alpha</u>	Method
Boron (mg/L)	HGWC-7	0.05885	n/a	10/3/2017	0.967	Yes	27	18.52	sqrt(x)	0.001075	Param Inter 1 of 2
Boron (mg/L)	HGWC-8	0.05885	n/a	10/3/2017	2.84	Yes	27	18.52	sqrt(x)	0.001075	Param Inter 1 of 2
Boron (mg/L)	HGWC-9	0.05885	n/a	10/3/2017	2.05	Yes	27	18.52	sqrt(x)	0.001075	Param Inter 1 of 2
Boron (mg/L)	HGWC-10	0.05885	n/a	10/3/2017	0.871	Yes	27	18.52	sqrt(x)	0.001075	Param Inter 1 of 2
Boron (mg/L)	HGWC-11	0.05885	n/a	10/3/2017	1.47	Yes	27	18.52	sqrt(x)	0.001075	Param Inter 1 of 2
Boron (mg/L)	HGWC-12	0.05885	n/a	10/3/2017	2.35	Yes	27	18.52	sqrt(x)	0.001075	Param Inter 1 of 2
Boron (mg/L)	HGWC-13	0.05885	n/a	10/3/2017	1.43	Yes	27	18.52	sqrt(x)	0.001075	Param Inter 1 of 2
Calcium (mg/L)	HGWC-7	138	n/a	10/3/2017	108	No	27	0	n/a	0.002353	NP Inter (normality)
Calcium (mg/L)	HGWC-8	138	n/a	10/3/2017	158	Yes	27	0	n/a	0.002353	NP Inter (normality)
Calcium (mg/L)	HGWC-9	138	n/a	10/3/2017	188	Yes	27	0	n/a	0.002353	NP Inter (normality)
Calcium (mg/L)	HGWC-10	138	n/a	10/3/2017	162	Yes	27	0	n/a	0.002353	NP Inter (normality)
Calcium (mg/L)	HGWC-11	138	n/a	10/3/2017	87.7	No	27	0	n/a	0.002353	NP Inter (normality)
Calcium (mg/L)	HGWC-12	138	n/a	10/3/2017	130	No	27	0	n/a	0.002353	NP Inter (normality)
Calcium (mg/L)	HGWC-13	138	n/a	10/3/2017	62	No	27	0	n/a	0.002353	NP Inter (normality)
Chloride (mg/L)	HGWC-7	9.94	n/a	10/3/2017	52	Yes	27	0	n/a	0.002353	NP Inter (normality)
Chloride (mg/L)	HGWC-8	9.94	n/a	10/3/2017	130	Yes	27	0	n/a	0.002353	NP Inter (normality)
Chloride (mg/L)	HGWC-9	9.94	n/a	10/3/2017	160	Yes	27	0	n/a	0.002353	NP Inter (normality)
Chloride (mg/L)	HGWC-10	9.94	n/a	10/3/2017	100	Yes	27	0	n/a	0.002353	NP Inter (normality)
Chloride (mg/L)	HGWC-11	9.94	n/a	10/3/2017	28	Yes	27	0	n/a	0.002353	NP Inter (normality)
Chloride (mg/L)	HGWC-12	9.94	n/a	10/3/2017	93	Yes	27	0	n/a	0.002353	NP Inter (normality)
Chloride (mg/L)	HGWC-13	9.94	n/a	10/3/2017	29	Yes	27	0	n/a	0.002353	NP Inter (normality)
pH (SU)	HGWC-7	7.47	4.9	10/3/2017	7.21	No	27	0	n/a	0.004706	NP Inter (normality)
pH (SU)	HGWC-8	7.47	4.9	10/3/2017	6.72	No	27	0	n/a	0.004706	NP Inter (normality)
pH (SU)	HGWC-9	7.47	4.9	10/3/2017	7.07	No	27	0	n/a	0.004706	NP Inter (normality)
pH (SU)	HGWC-10	7.47	4.9	10/3/2017	6.54	No	27	0	n/a	0.004706	NP Inter (normality)
pH (SU)	HGWC-11	7.47	4.9	10/3/2017	6.25	No	27	0	n/a	0.004706	NP Inter (normality)
pH (SU)	HGWC-12	7.47	4.9	10/3/2017	7.01	No	27	0	n/a	0.004706	NP Inter (normality)
pH (SU)	HGWC-13	7.47	4.9	10/3/2017	7.32	No	27	0	n/a	0.004706	NP Inter (normality)
Sulfate (mg/L)	HGWC-7	77	n/a	10/3/2017	120	Yes	27	0	n/a	0.002353	NP Inter (normality)
Sulfate (mg/L)	HGWC-8	77	n/a	10/3/2017	230	Yes	27	0	n/a	0.002353	NP Inter (normality)
Sulfate (mg/L)	HGWC-9	77	n/a	10/3/2017	240	Yes	27	0	n/a	0.002353	NP Inter (normality)
Sulfate (mg/L)	HGWC-10	77	n/a	10/3/2017	200	Yes	27	0	n/a	0.002353	NP Inter (normality)
Sulfate (mg/L)	HGWC-11	77	n/a	10/3/2017	230	Yes	27	0	n/a	0.002353	NP Inter (normality)
Sulfate (mg/L)	HGWC-12	77	n/a	10/3/2017	190	Yes	27	0	n/a	0.002353	NP Inter (normality)
Sulfate (mg/L)	HGWC-13	77	n/a	10/3/2017	67	No	27	0	n/a	0.002353	NP Inter (normality)
Total Dissolved Solids (mg/L)	HGWC-7	464.4	n/a	10/3/2017	464	No	27	0	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-8	464.4	n/a	10/3/2017	812	Yes	27	0	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-9	464.4	n/a	10/3/2017	1040	Yes	27	0	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-10	464.4	n/a	10/3/2017	746	Yes	27	0	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-11	464.4	n/a	10/3/2017	443	No	27	0	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-12	464.4	n/a	10/3/2017	608	Yes	27	0	No	0.001075	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-13	464.4	n/a	10/3/2017	268	No	27	0	No	0.001075	Param Inter 1 of 2

Exceeds Limit: HGWC-7, HGWC-8, HGWC-9. HGWC-10. HGWC-11. HGWC-12...

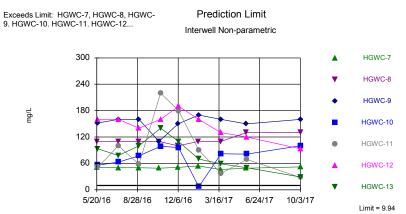
Prediction Limit Interwell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.1421, Std. Dev.=0.04886, n=27, 18.52% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9255, critical = 0.894. Kappa = 2.057 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Boron Analysis Run 1/25/2018 6:22 PM View: 2A. Interwell UPL - Group A Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

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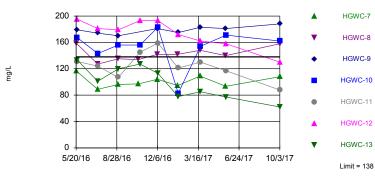


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. Annual per-constituent alpha = 0.03244. Individual comparison alpha = 0.002353 (1 of 2). Comparing 7 points to limit.

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Exceeds Limit: HGWC-8, HGWC-9, HGWC-

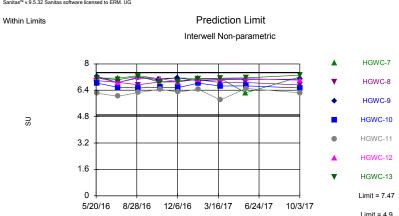
Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. Annual per-constituent alpha = 0.03244. Individual comparison alpha = 0.002353 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 1/25/2018 6:22 PM View: 2A. Interwell UPL - Group A Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

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Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 27 background values. Annual perconstituent alpha = 0.06489. Individual comparison alpha = 0.004706 (1 of 2). Comparing 7 points to limit.

Constituent: Boron (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-1 (bg)	HGWC-7	HGWC-8	HGWC-9	HGWC-10	HGWC-11	HGWC-13
5/19/2016	0.0321 (J)	<0.0211	0.0214 (J)						
5/20/2016				0.885	1.71				
5/23/2016						1.76	0.72	0.787	2.15
7/11/2016	0.0337 (J)		0.0142 (J)						
7/12/2016		0.0074 (J)		0.857	1.43	1.56	0.778	1.17	1.91
8/30/2016	0.0173 (J)	<0.0211	0.0074 (J)						
9/1/2016				0.904	1.91	2	0.786	1.49	2.3
10/19/2016	0.0341 (J)	0.0085 (J)	0.0224 (J)						
10/20/2016				0.936	1.72	1.68			
10/24/2016							0.831	2.54	4.01
12/6/2016	<0.0211 (*)	<0.0211 (*)	<0.0211 (*)	1.06	2.06	2.15			
12/7/2016							1.01	2.96	3.85
1/24/2017	0.0365 (J)	0.01 (J)	0.0165 (J)						
1/25/2017				0.764	2.01				
1/26/2017						1.87	0.108	2.23	2.45
3/21/2017	0.0349 (J)	0.0079 (J)	0.0187 (J)	0.857	2.08				
3/22/2017						1.99	0.788	0.84	1.99
5/22/2017	0.0475	0.0131 (J)	0.0782						
5/23/2017				0.91	2.32	2.29			
5/24/2017							0.814	2.29	1.74
10/3/2017	0.0386 (J)	0.0097 (J)	0.0198 (J)	0.967	2.84	2.05	0.871	1.47	1.43

Constituent: Boron (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWC-12
5/19/2016	
5/20/2016	
5/23/2016	2.2
7/11/2016	
7/12/2016	1.98
8/30/2016	
9/1/2016	2.28
10/19/2016	
10/20/2016	
10/24/2016	2.75
12/6/2016	
12/7/2016	3.35
1/24/2017	
1/25/2017	
1/26/2017	3.07
3/21/2017	
3/22/2017	3.04
5/22/2017	
5/23/2017	
5/24/2017	2.95
10/3/2017	2.35

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-1 (bg)	HGWC-7	HGWC-8	HGWC-9	HGWC-10	HGWC-11	HGWC-13
5/19/2016	22.9	76.2	138						
5/20/2016				117	159				
5/23/2016						179	167	131	133
7/11/2016	22.3		97.2						
7/12/2016		61.5		88.8	127	174	143	124	101
8/30/2016	26.4	65.1	97.5						
9/1/2016				96.3	135	170	156	107	120
10/19/2016	21.7	73.2	99.2						
10/20/2016				96.9	134	133 (O)			
10/24/2016							156	145	127
12/6/2016	18.2	74.9	105	104	142	181			
12/7/2016							183	159	113
1/24/2017	18.5	69.6	95.7						
1/25/2017				94.5	142				
1/26/2017						175 (B-01)	82.6 (B-01)	121 (B-01)	77.9 (B-01)
3/21/2017	18.6	75.7	106	109	148				
3/22/2017						183	154	130	85.1
5/22/2017	17.8	71.5	107						
5/23/2017				93.3	140	181			
5/24/2017							171	117	77.1
10/3/2017	20.2	76.3	102	108	158	188	162	87.7	62

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWC-12
5/19/2016	
5/20/2016	
5/23/2016	195
7/11/2016	
7/12/2016	181
8/30/2016	
9/1/2016	179
10/19/2016	
10/20/2016	
10/24/2016	193
12/6/2016	
12/7/2016	193
1/24/2017	
1/25/2017	
1/26/2017	172 (B-01)
3/21/2017	
3/22/2017	162
5/22/2017	
5/23/2017	
5/24/2017	158
10/3/2017	130

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-1 (bg)	HGWC-7	HGWC-8	HGWC-9	HGWC-10	HGWC-11	HGWC-13
5/19/2016	6.14	5.93	9.94						
5/20/2016				50.4	109				
5/23/2016						152	56.1	51.9	93.2
7/11/2016	5.9 (B)		6.3 (B-01)						
7/12/2016		6.2 (B)		50 (B)	110 (B)	160 (B)	63 (B)	100 (B)	78 (B)
8/30/2016	6.2	6.4	6						
9/1/2016				50	110	160	77	58	100
10/19/2016	6.1	6.5	5.8						
10/20/2016				49	110	110			
10/24/2016							99	220	140
12/6/2016	6	7.2	5.4	51	100	150			
12/7/2016							96	180	110
1/24/2017	6.1	6.4	5.2						
1/25/2017				54	110				
1/26/2017						170	7	90	70
3/21/2017	5.9	7.5	4.6	46	110				
3/22/2017						160	82	37	59
5/22/2017	5.9	6.5	4.6						
5/23/2017				49	130	150			
5/24/2017							81	69	50
10/3/2017	6.3	6.5	5.6	52	130	160	100	28	29

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWC-12
5/19/2016	
5/20/2016	
5/23/2016	160
7/11/2016	
7/12/2016	160 (B)
8/30/2016	
9/1/2016	140
10/19/2016	
10/20/2016	
10/24/2016	160
12/6/2016	
12/7/2016	190
1/24/2017	
1/25/2017	
1/26/2017	160
3/21/2017	
3/22/2017	130
5/22/2017	
5/23/2017	
5/24/2017	120
10/3/2017	93

Constituent: pH (SU) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-1 (bg)	HGWC-7	HGWC-8	HGWC-9	HGWC-10	HGWC-11	HGWC-13
5/19/2016	5.81	7.45	7.27						
5/20/2016				7.14	6.99				
5/23/2016						7.23	6.83	6.22	7.14
7/11/2016	5.68		7.06						
7/12/2016		7.32		7.13	6.88	6.87	6.58	6.04	7.04
8/30/2016	5.63	7.43	7.28						
9/1/2016				7.29	6.73	7.15	6.54	6.26	7.24
10/19/2016	5.46	7.03	7.02						
10/20/2016				7.1	6.9	7.05			
10/24/2016							6.59	6.46	6.9
12/6/2016	5.38	7.08	7.09	7.15	6.98	7.15			
12/7/2016							6.56	6.29	6.91
1/24/2017	5.37	7.39	7.2						
1/25/2017				7.11	7.04				
1/26/2017						6.99	6.83	6.46	7.08
3/21/2017	4.9	6.83	7.01	7.12	6.87				
3/22/2017						7.03	6.66	5.81	7.13
5/22/2017	5.2	5.2	7.11						
5/23/2017				6.25 (L)	6.87	7.05			
5/24/2017							6.67	6.51	7.15
10/3/2017	5.3	7.47	7.21	7.21	6.72	7.07	6.54	6.25	7.32

Constituent: pH (SU) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWC-12
5/19/2016	
5/20/2016	
5/23/2016	7.15
7/11/2016	
7/12/2016	6.87
8/30/2016	
9/1/2016	7.2
10/19/2016	
10/20/2016	
10/24/2016	7.1
12/6/2016	
12/7/2016	6.92
1/24/2017	
1/25/2017	
1/26/2017	7.05
3/21/2017	
3/22/2017	7.08
5/22/2017	
5/23/2017	
5/24/2017	7.11
10/3/2017	7.01

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Prediction Limit Exceeds Limit: HGWC-7, HGWC-8, HGWC-9. HGWC-10. HGWC-11. HGWC-12 Interwell Non-parametric 400 HGWC-7 HGWC-8 320 HGWC-9 240 HGWC-10 160 HGWC-11 80 HGWC-12 HGWC-13 0

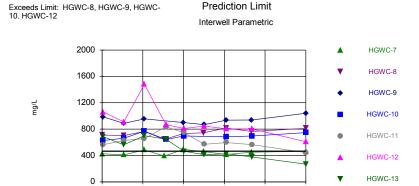
5/20/16 8/28/16 12/6/16 3/16/17 6/24/17 10/3/17

Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. Annual per-constituent alpha = 0.003244. Individual comparison alpha = 0.002353 (1 of 2). Comparing 7 points to limit.

Limit = 77

Constituent: Sulfate Analysis Run 1/25/2018 6:22 PM View: 2A. Interwell UPL - Group A
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

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Background Data Summary: Mean=259.4, Std. Dev.=99.66, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.916, critical = 0.894. Kappa = 2.057 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

5/20/16 8/28/16 12/6/16 3/16/17 6/24/17 10/3/17

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 6:22 PM View: 2A. Interwell UPL - Group A
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

Limit = 464.4

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-1 (bg)	HGWC-7	HGWC-8	HGWC-9	HGWC-10	HGWC-11	HGWC-13
5/19/2016	48.6	42.3	66.9						
5/20/2016				96	219				
5/23/2016						207	175	260	215
7/11/2016	45		41						
7/12/2016		44		100	230	230	190	390	210
8/30/2016	42	40	36						
9/1/2016				100	230	230	190	240	190
10/19/2016	44	43	46						
10/20/2016				110	240	240			
10/24/2016							190	370	180
12/6/2016	44	43	59	110	250	240			
12/7/2016							200	260	120
1/24/2017	46	48	46						
1/25/2017				110	260				
1/26/2017						270	90 (O)	230	83
3/21/2017	46	45	63	110	240				
3/22/2017						240	170	330	100
5/22/2017	48	46	77						
5/23/2017				110	270	240			
5/24/2017							190	230	110
10/3/2017	47 (B-01)	48 (B-01)	42 (B-01)	120 (B-01)	230 (B-01)	240 (B-01)	200 (B-01)	230 (B-01)	67 (B-01)

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWC-12
5/19/2016	
5/20/2016	
5/23/2016	288
7/11/2016	
7/12/2016	320
8/30/2016	
9/1/2016	300
10/19/2016	
10/20/2016	
10/24/2016	270
12/6/2016	
12/7/2016	280
1/24/2017	
1/25/2017	
1/26/2017	260
3/21/2017	
3/22/2017	220
5/22/2017	
5/23/2017	
5/24/2017	210
10/3/2017	190 (B-01)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-1 (bg)	HGWC-7	HGWC-8	HGWC-13	HGWC-12	HGWC-9	HGWC-11
5/19/2016	143	267	421						
5/20/2016				427	711				
5/23/2016						683	1060	984	564
7/11/2016	125		363						
7/12/2016		249		410	704	563	909	887	627
8/30/2016	168	254	330						
9/1/2016				484	763	702	1480	956	656
10/19/2016	176	357	380						
10/20/2016				393	644			642 (O)	
10/24/2016						647	868		836
12/6/2016	145	285	377	492	733			899	
12/7/2016						465	811		748
1/24/2017	129	300	342						
1/25/2017				461	744				
1/26/2017						411	846	869	571
3/21/2017	103	288	340	415	818				
3/22/2017						427	804	936	597
5/22/2017	92	263	338						
5/23/2017				450	765			939	
5/24/2017						377	803		566
10/3/2017	127	300	343	464	812	268	608	1040	443

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 6:23 PM View: 2A. Interwell UPL - Group A
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

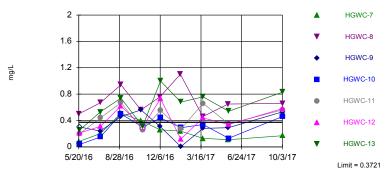
	HGWC-10
5/19/2016	
5/20/2016	
5/23/2016	629
7/11/2016	
7/12/2016	661
8/30/2016	
9/1/2016	769
10/19/2016	
10/20/2016	
10/24/2016	643
12/6/2016	
12/7/2016	697
1/24/2017	
1/25/2017	
1/26/2017	368 (O)
3/21/2017	
3/22/2017	683
5/22/2017	
5/23/2017	
5/24/2017	696
10/3/2017	746

	Р	lant Hammond	Client: Southern Co	mpany Data:	Hammond Ash	n Pond1	20180	125 Printe	ed 1/25/2018, 6:24 Pl	VI	
Constituent	Well	Upper Lim.	Lower Lim.	<u>Date</u>	Observ.	Sig.	Bg N	%NDs	<u>Transform</u>	<u>Alpha</u>	Method
Fluoride (mg/L)	HGWC-7	0.3721	n/a	10/3/2017	0.17	No	27	14.81	sqrt(x)	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-8	0.3721	n/a	10/3/2017	0.66	Yes	27	14.81	sqrt(x)	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-9	0.3721	n/a	10/3/2017	0.53	Yes	27	14.81	sqrt(x)	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-10	0.3721	n/a	10/3/2017	0.46	Yes	27	14.81	sqrt(x)	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-11	0.3721	n/a	10/3/2017	0.56	Yes	27	14.81	sqrt(x)	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-12	0.3721	n/a	10/3/2017	0.58	Yes	27	14.81	sqrt(x)	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-13	0.3721	n/a	10/3/2017	0.83	Yes	27	14.81	sqrt(x)	0.001075	Param Inter 1 of 2

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Exceeds Limit: HGWC-8, HGWC-9, HGWC-10, HGWC-11, HGWC-12, HGWC-13

Prediction Limit Interwell Parametric



Background Data Summary (based on square root transformation): Mean=0.3415, Std. Dev.=0.1305, n=27, 14.81% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.941, critical = 0.894. Kappa = 2.057 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 1/25/2018 6:24 PM View: 2B. Interwell UPL - Group B
Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

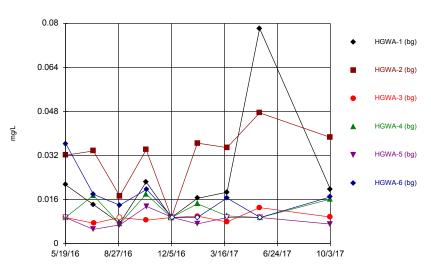
Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 6:24 PM View: 2B. Interwell UPL - Group B Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-1 (bg)	HGWC-7	HGWC-8	HGWC-9	HGWC-10	HGWC-11	HGWC-13
5/19/2016	0.0303 (J)	0.0513 (J)	0.105 (J)						
5/20/2016				0.0828 (J)	0.499				
5/23/2016						<0.3	0.0394 (J)	0.203 (J)	0.2587 (J)
7/11/2016	0.05 (J)		0.16 (J)						
7/12/2016		0.12 (J)		0.2 (J)	0.67	0.24 (J)	0.15 (J)	0.44	0.53
8/30/2016	0.06 (J)	0.09 (J)	0.09 (J)						
9/1/2016				0.51	0.94	0.46	0.5	0.67	0.74
10/19/2016	0.04 (J)	0.1 (J)	0.1 (J)						
10/20/2016				0.4	0.56	0.56			
10/24/2016							<0.3 (*)	0.26 (J)	0.31
12/6/2016	0.36	0.21 (J)	0.11 (J)	0.26 (J)	0.76	0.31			
12/7/2016							0.44	0.55	1
1/24/2017	<0.3	0.06 (J)	0.09 (J)						
1/25/2017				0.24 (J)	1.1				
1/26/2017						0.004 (J)	0.29 (J)	0.27 (J)	0.68
3/21/2017	<0.3	0.005 (J)	0.13 (J)	0.13 (J)	0.46				
3/22/2017						0.28 (J)	0.34	0.66	0.76
5/22/2017	<0.3	0.05 (J)	0.12 (J)						
5/23/2017				0.11 (J)	0.65	0.29 (J)			
5/24/2017							0.13 (J)	0.35	0.54
10/3/2017	<0.3	0.13 (J)	0.13 (J)	0.17 (J)	0.66	0.53	0.46	0.56	0.83

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 6:24 PM View: 2B. Interwell UPL - Group B Plant Hammond Client: Southern Company Data: Hammond Ash Pond1 20180125

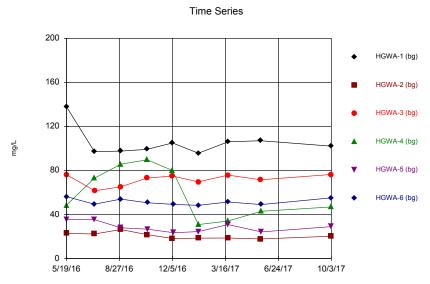
	HGWC-12
5/19/2016	
5/20/2016	
5/23/2016	0.212 (J)
7/11/2016	
7/12/2016	0.31
8/30/2016	
9/1/2016	0.62
10/19/2016	
10/20/2016	
10/24/2016	<0.3 (*)
12/6/2016	
12/7/2016	0.73
1/24/2017	
1/25/2017	
1/26/2017	0.12 (J)
3/21/2017	
3/22/2017	0.44
5/22/2017	
5/23/2017	
5/24/2017	0.34
10/3/2017	0.58





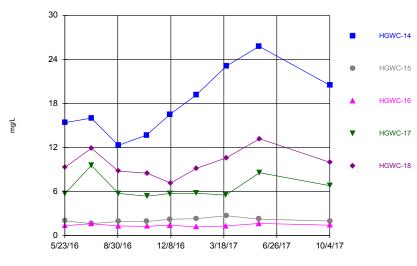
Constituent: Boron Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

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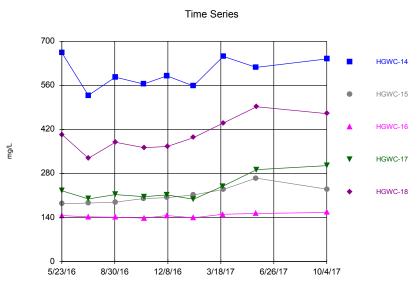
Constituent: Calcium Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

Time Series



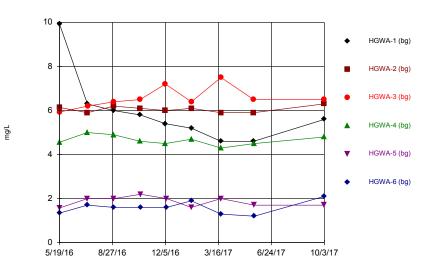
Constituent: Boron Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

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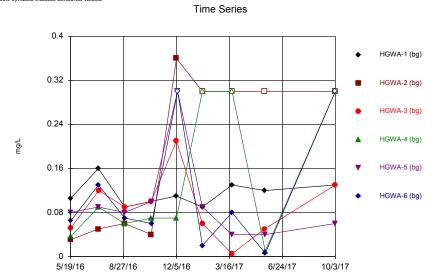
Constituent: Calcium Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125





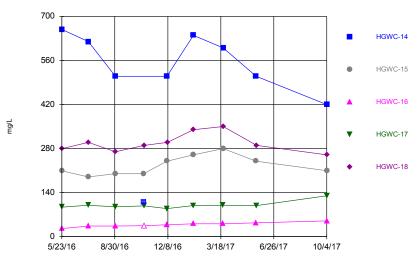
Constituent: Chloride Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

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Constituent: Fluoride Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

Time Series

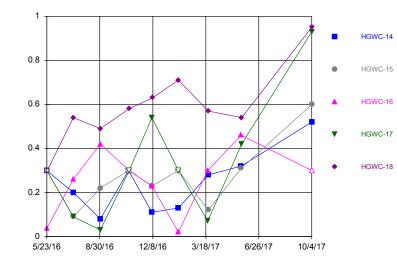


Constituent: Chloride Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

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mg/L

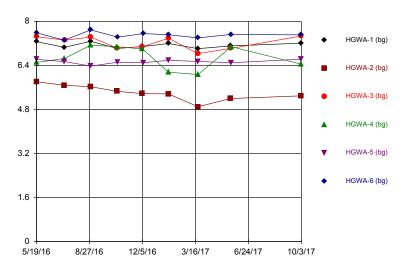
Time Series



Constituent: Fluoride Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

S





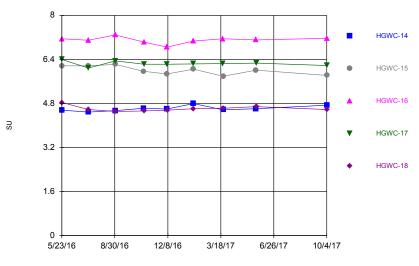
Constituent: pH Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

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Time Series 80 HGWA-1 (bg) 64 HGWA-2 (bg) HGWA-3 (bg) HGWA-4 (bg) mg/L 32 HGWA-5 (bg) HGWA-6 (bg) 16 5/19/16 8/27/16 12/5/16 3/16/17 6/24/17 10/3/17

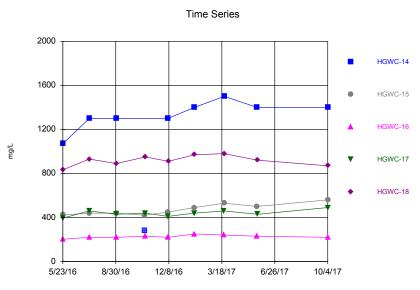
Constituent: Sulfate Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

Time Series



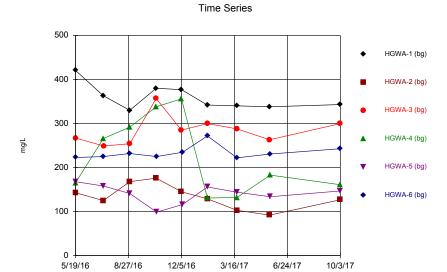
Constituent: pH Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

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Constituent: Sulfate Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

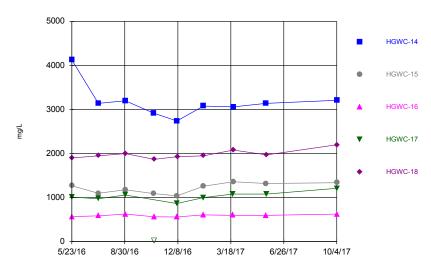
Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UC



Constituent: Total Dissolved Solids Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

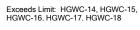
Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG Hollow symbols indicate censored values.

Time Series

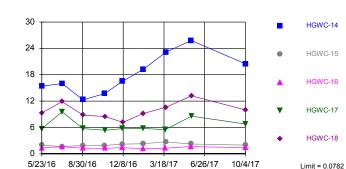


Constituent: Total Dissolved Solids Analysis Run 1/25/2018 7:19 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	Plan	t Hammond Cli	ent: Southern Con	mpany Data:	Hammond Ash	Pond2	201801	125 Printe	ed 1/25/2018, 7:21 Pľ	М	
<u>Constituent</u> <u>V</u>	Well	Upper Lim.	Lower Lim.	<u>Date</u>	Observ.	Sig.	Bg N	%NDs	<u>Transform</u>	<u>Alpha</u>	Method
Boron (mg/L)	HGWC-14	0.0782	n/a	10/4/2017	20.5	Yes	54	27.78	n/a	0.000	NP Inter (normality)
Boron (mg/L)	HGWC-15	0.0782	n/a	10/4/2017	2	Yes	54	27.78	n/a	0.000	NP Inter (normality)
Boron (mg/L)	HGWC-16	0.0782	n/a	10/4/2017	1.43	Yes	54	27.78	n/a	0.000	NP Inter (normality)
Boron (mg/L)	HGWC-17	0.0782	n/a	10/4/2017	6.8	Yes	54	27.78	n/a	0.000	NP Inter (normality)
Boron (mg/L)	HGWC-18	0.0782	n/a	10/4/2017	10	Yes	54	27.78	n/a	0.000	NP Inter (normality)
Calcium (mg/L)	HGWC-14	112.1	n/a	10/4/2017	644	Yes	54	0	No	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-15	112.1	n/a	10/4/2017	230	Yes	54	0	No	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-16	112.1	n/a	10/4/2017	156	Yes	54	0	No	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-17	112.1	n/a	10/4/2017	305	Yes	54	0	No	0.001504	Param Inter 1 of 2
Calcium (mg/L)	HGWC-18	112.1	n/a	10/4/2017	470	Yes	54	0	No	0.001504	Param Inter 1 of 2
Chloride (mg/L)	HGWC-14	9.94	n/a	10/4/2017	420	Yes	54	0	n/a	0.000	NP Inter (normality)
Chloride (mg/L)	HGWC-15	9.94	n/a	10/4/2017	210	Yes	54	0	n/a	0.000	NP Inter (normality)
Chloride (mg/L)	HGWC-16	9.94	n/a	10/4/2017	50	Yes	54	0	n/a	0.000	NP Inter (normality)
Chloride (mg/L)	HGWC-17	9.94	n/a	10/4/2017	130	Yes	54	0	n/a	0.000	NP Inter (normality)
Chloride (mg/L)	HGWC-18	9.94	n/a	10/4/2017	260	Yes	54	0	n/a	0.000	NP Inter (normality)
Fluoride (mg/L)	HGWC-14	0.1819	n/a	10/4/2017	0.52	Yes	54	18.52	x^(1/3)	0.001504	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-15	0.1819	n/a	10/4/2017	0.6	Yes	54	18.52	x^(1/3)	0.001504	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-16	0.1819	n/a	10/4/2017	0.3ND	No	54	18.52	x^(1/3)	0.001504	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-17	0.1819	n/a	10/4/2017	0.93	Yes	54	18.52	x^(1/3)	0.001504	Param Inter 1 of 2
Fluoride (mg/L)	HGWC-18	0.1819	n/a	10/4/2017	0.95	Yes	54	18.52	x^(1/3)	0.001504	Param Inter 1 of 2
pH (SU)	HGWC-14	7.861	5.306	10/4/2017	4.74	Yes	54	0	x^3	0.000752	Param Inter 1 of 2
pH (SU)	HGWC-15	7.861	5.306	10/4/2017	5.82	No	54	0	x^3	0.000752	Param Inter 1 of 2
pH (SU)	HGWC-16	7.861	5.306	10/4/2017	7.17	No	54	0	x^3	0.000752	Param Inter 1 of 2
pH (SU)	HGWC-17	7.861	5.306	10/4/2017	6.18	No	54	0	x^3	0.000752	Param Inter 1 of 2
pH (SU)	HGWC-18	7.861	5.306	10/4/2017	4.58	Yes	54	0	x^3	0.000752	Param Inter 1 of 2
Sulfate (mg/L)	HGWC-14	77	n/a	10/4/2017	1400	Yes	54	0	n/a	0.000	NP Inter (normality)
Sulfate (mg/L)	HGWC-15	77	n/a	10/4/2017	560	Yes	54	0	n/a	0.000	NP Inter (normality)
Sulfate (mg/L)	HGWC-16	77	n/a	10/4/2017	220	Yes	54	0	n/a	0.000	NP Inter (normality)
Sulfate (mg/L)	HGWC-17	77	n/a	10/4/2017	490	Yes	54	0	n/a	0.000	NP Inter (normality)
Sulfate (mg/L)	HGWC-18	77	n/a	10/4/2017	870	Yes	54	0	n/a	0.000	NP Inter (normality)
Total Dissolved Solids (mg/L)	HGWC-14	395.3	n/a	10/4/2017	3210	Yes	54	0	No	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-15	395.3	n/a	10/4/2017	1340	Yes	54	0	No	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-16	395.3	n/a	10/4/2017	626	Yes	54	0	No	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-17	395.3	n/a	10/4/2017	1210	Yes	54	0	No	0.001504	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	HGWC-18	395.3	n/a	10/4/2017	2200	Yes	54	0	No	0.001504	Param Inter 1 of 2



Prediction Limit Interwell Non-parametric



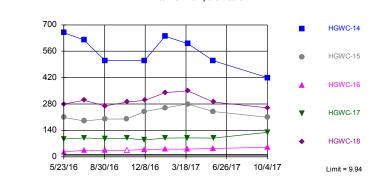
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 54 background values. 27.78% NDs. Annual perconstituent alpha = 0.006529. Individual comparison alpha = 0.0006549 (1 of 2). Comparing 5 points to limit.

Constituent: Boron Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

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Exceeds Limit: HGWC-14, HGWC-15, HGWC-16. HGWC-17. HGWC-18

Prediction Limit Interwell Non-parametric

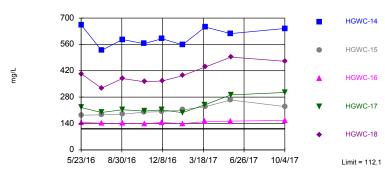


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 54 background values. Annual per-constituent alpha = 0.006529. Individual comparison alpha = 0.0006549 (1 of 2). Comparing 5 points to limit.

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Prediction Limit Interwell Parametric



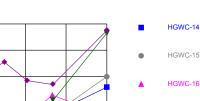
Background Data Summary: Mean=56.12, Std. Dev.=30.2, n=54. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9404, critical = 0.939. Kappa = 1.854 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Comparing 5 points to limit.

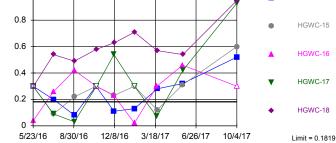
Constituent: Calcium Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

Prediction Limit

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Exceeds Limit: HGWC-14, HGWC-15, HGWC-17. HGWC-18 Interwell Parametric





Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.3444, Std. Dev.=0.1198, n=54, 18.52% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9408, critical = 0.939. Kappa = 1.854 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Comparing 5 points to limit.

Constituent: Boron (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWA-2 (bg)	HGWA-4 (bg)	HGWA-3 (bg)	HGWA-5 (bg)	HGWA-1 (bg)	HGWA-6 (bg)	HGWC-16	HGWC-17	HGWC-15
5/19/2016	0.0321 (J)	<0.0095	<0.0095	<0.0095	0.0214 (J)				
5/20/2016						0.0363 (J)			
5/23/2016							1.36	5.7	2.02
5/24/2016									
7/11/2016	0.0337 (J)	0.0175 (J)		0.0052 (J)	0.0142 (J)	0.0179 (J)			
7/12/2016			0.0074 (J)				1.62	9.58	1.65
8/30/2016	0.0173 (J)	0.0072 (J)	<0.0095	0.0068 (J)	0.0074 (J)	0.014 (J)			
9/1/2016							1.31	5.76	1.93
10/19/2016	0.0341 (J)	0.018 (J)	0.0085 (J)		0.0224 (J)				
10/20/2016				0.0135 (J)		0.0197 (J)			
10/24/2016									1.93
10/25/2016							1.27	5.38	
12/6/2016	<0.0095 (*)	<0.0095 (*)	<0.0095 (*)		<0.0095 (*)				
12/7/2016							1.42	5.74	2.23
12/8/2016				<0.0095 (*)		<0.0095 (*)			
1/24/2017	0.0365 (J)	0.0145 (J)	0.01 (J)	0.0072 (J)	0.0165 (J)	<0.0095			
1/26/2017							1.19	5.78	2.31
3/21/2017	0.0349 (J)	0.0101 (J)	0.0079 (J)	<0.0095	0.0187 (J)	0.0166 (J)			
3/22/2017							1.32	5.52	
3/23/2017									2.72
5/22/2017	0.0475		0.0131 (J)		0.0782				
5/23/2017		<0.0095 (*)		<0.0095 (*)		<0.0095 (*)			
5/24/2017							1.67		2.26
5/25/2017								8.58	
10/3/2017	0.0386 (J)	0.0162 (J)	0.0097 (J)	0.0071 (J)	0.0198 (J)	0.017 (J)			
10/4/2017							1.43	6.8	2

Constituent: Boron (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWC-14	HGWC-18
5/19/2016		
5/20/2016		
5/23/2016	15.4	
5/24/2016		9.33
7/11/2016		
7/12/2016	16	11.9
8/30/2016		
9/1/2016	12.3	8.8
10/19/2016		
10/20/2016		
10/24/2016	13.7	
10/25/2016		8.5
12/6/2016		
12/7/2016	16.5	
12/8/2016		7.15
1/24/2017		
1/26/2017	19.2	9.17
3/21/2017		
3/22/2017		
3/23/2017	23.1	10.6
5/22/2017		
5/23/2017		
5/24/2017	25.8	
5/25/2017		13.2
10/3/2017		
10/4/2017	20.5	10

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWA-2 (bg)	HGWA-4 (bg)	HGWA-3 (bg)	HGWA-5 (bg)	HGWA-1 (bg)	HGWA-6 (bg)	HGWC-16	HGWC-17	HGWC-15
5/19/2016	22.9	48.4	76.2	35.5	138				
5/20/2016						56.1			
5/23/2016							146	225	184
5/24/2016									
7/11/2016	22.3	73		35.4	97.2	49.3			
7/12/2016			61.5				142	199	186
8/30/2016	26.4	85.7	65.1	28	97.5	53.9			
9/1/2016							141	213	189
10/19/2016	21.7	89.7	73.2		99.2				
10/20/2016				26.7		50.7			
10/24/2016									200
10/25/2016							138	206	
12/6/2016	18.2	80	74.9		105				
12/7/2016							146	212	203
12/8/2016				23.5		49.2			
1/24/2017	18.5	30.8	69.6	24.5	95.7	48.3			
1/26/2017							139	198	212
3/21/2017	18.6	34	75.7	30.8	106	51.3			
3/22/2017							150	239	
3/23/2017									229 (B-01)
5/22/2017	17.8		71.5		107				
5/23/2017		43		24.2		49.1			
5/24/2017							153		265
5/25/2017								292	
10/3/2017	20.2	46.9	76.3	29	102	55.1			
10/4/2017							156	305	230

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWC-14	HGWC-18
5/19/2016		
5/20/2016		
5/23/2016	664	
5/24/2016		403
7/11/2016		
7/12/2016	528	328
8/30/2016		
9/1/2016	586	379
10/19/2016		
10/20/2016		
10/24/2016	564	
10/25/2016		362
12/6/2016		
12/7/2016	590	
12/8/2016		366
1/24/2017		
1/26/2017	558 (B-01)	394
3/21/2017		
3/22/2017		
3/23/2017	652 (B-01)	440 (B-01)
5/22/2017		
5/23/2017		
5/24/2017	617	
5/25/2017		492
10/3/2017		
10/4/2017	644	470

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWA-4 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-5 (bg)	HGWA-1 (bg)	HGWA-6 (bg)	HGWC-15	HGWC-17	HGWC-14
5/19/2016	4.56	6.14	5.93	1.57	9.94				
5/20/2016						1.35			
5/23/2016							209	94	659
5/24/2016									
7/11/2016	5 (B)	5.9 (B)		2 (B)	6.3 (B-01)	1.7 (B)			
7/12/2016			6.2 (B)				190 (B)	100 (B)	620 (B)
8/30/2016	4.9	6.2	6.4	2	6	1.6			
9/1/2016							200	95	510
10/19/2016	4.6	6.1	6.5		5.8				
10/20/2016				2.2		1.6			
10/24/2016							200		110 (O)
10/25/2016								98	
12/6/2016	4.5	6	7.2		5.4				
12/7/2016							240	89	510
12/8/2016				2		1.6			
1/24/2017	4.7	6.1	6.4	1.6	5.2	1.9			
1/26/2017							260	99	640
3/21/2017	4.3	5.9	7.5	2	4.6	1.3			
3/22/2017								100	
3/23/2017							280		600
5/22/2017		5.9	6.5		4.6				
5/23/2017	4.5			1.7		1.2			
5/24/2017							240		510
5/25/2017								99	
10/3/2017	4.8	6.3	6.5	1.7	5.6	2.1			
10/4/2017							210	130	420

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWC-16	HGWC-18
5/19/2016		
5/20/2016		
5/23/2016	25.8	
5/24/2016		280
7/11/2016		
7/12/2016	34 (B)	300 (B)
8/30/2016		
9/1/2016	34	270
10/19/2016		
10/20/2016		
10/24/2016		
10/25/2016	<35 (*)	290
12/6/2016		
12/7/2016	38	
12/8/2016		300
1/24/2017		
1/26/2017	41	340
3/21/2017		
3/22/2017	41	
3/23/2017		350
5/22/2017		
5/23/2017		
5/24/2017	44	
5/25/2017		290
10/3/2017		
10/4/2017		260

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWA-2 (bg)	HGWA-4 (bg)	HGWA-3 (bg)	HGWA-5 (bg)	HGWA-1 (bg)	HGWA-6 (bg)	HGWC-16	HGWC-17	HGWC-15
5/19/2016	0.0303 (J)	0.036 (J)	0.0513 (J)	0.08 (J)	0.105 (J)				
5/20/2016						0.065 (J)			
5/23/2016							0.038 (J)	<0.3	<0.3
5/24/2016									
7/11/2016	0.05 (J)	0.09 (J)		0.09 (J)	0.16 (J)	0.13 (J)			
7/12/2016			0.12 (J)				0.26 (J)	0.09 (J)	0.09 (J)
8/30/2016	0.06 (J)	0.06 (J)	0.09 (J)	0.08 (J)	0.09 (J)	0.07 (J)			
9/1/2016							0.42	0.03 (J)	0.22 (J)
10/19/2016	0.04 (J)	0.07 (J)	0.1 (J)		0.1 (J)				
10/20/2016				0.1 (J)		0.06 (J)			
10/24/2016									<0.3 (*)
10/25/2016							<0.3 (*)	<0.3 (*)	
12/6/2016	0.36	0.07 (J)	0.21 (J)		0.11 (J)				
12/7/2016							0.23 (J)	0.54	0.23 (J)
12/8/2016				<0.3 (*)		<0.3 (*)			
1/24/2017	<0.3	<0.3	0.06 (J)	0.09 (J)	0.09 (J)	0.02 (J)			
1/26/2017							0.02 (J)	<0.3	<0.3
3/21/2017	<0.3	<0.3	0.005 (J)	0.04 (J)	0.13 (J)	0.08 (J)			
3/22/2017							0.3	0.07 (J)	
3/23/2017									0.12 (J)
5/22/2017	<0.3		0.05 (J)		0.12 (J)				
5/23/2017		0.01 (J)		0.04 (J)		0.006 (J)			
5/24/2017							0.46		0.31
5/25/2017								0.42	
10/3/2017	<0.3	<0.3	0.13 (J)	0.06 (J)	0.13 (J)	<0.3			
10/4/2017							<0.3	0.93	0.6

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWC-14	HGWC-18
5/19/2016		
5/20/2016		
5/23/2016	<0.3	
5/24/2016		<0.3
7/11/2016		
7/12/2016	0.2 (J)	0.54
8/30/2016		
9/1/2016	0.08 (J)	0.49
10/19/2016		
10/20/2016		
10/24/2016	<0.3 (*)	
10/25/2016		0.58
12/6/2016		
12/7/2016	0.11 (J)	
12/8/2016		0.63
1/24/2017		
1/26/2017	0.13 (J)	0.71
3/21/2017		
3/22/2017		
3/23/2017	0.28 (J)	0.57
5/22/2017		
5/23/2017		
5/24/2017	0.32	
5/25/2017		0.54
10/3/2017		
10/4/2017	0.52	0.95

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Exceeds Limits: HGWC-14, HGWC-18

Prediction Limit
Interwell Parametric

HGWC-14

HGWC-15

HGWC-16

1.6

HGWC-17

HGWC-18

Limit = 7.861

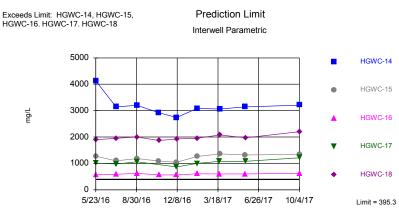
5/23/16 8/30/16 12/8/16 3/18/17 6/26/17 10/4/17

Background Data Summary (based on cube transformation): Mean=317.6, Std. Dev.=90.71, n=54. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9426, critical = 0.939. Kappa = 1.854 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.000752. Comparing 5 points to limit.

Limit = 5 306

Constituent: pH Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

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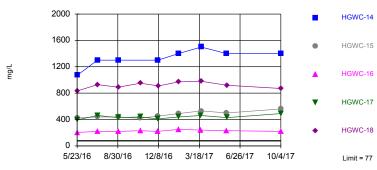


Background Data Summary: Mean=229.6, Std. Dev.=89.35, n=54. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9567, critical = 0.939. Kappa = 1.854 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Comparing 5 points to limit.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

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Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 54 background values. Annual per-constituent alpha = 0.006529. Individual comparison alpha = 0.006549 (1 of 2). Comparing 5 points to limit.

Constituent: Sulfate Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

Constituent: pH (SU) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWA-2 (bg)	HGWA-4 (bg)	HGWA-3 (bg)	HGWA-5 (bg)	HGWA-1 (bg)	HGWA-6 (bg)	HGWC-16	HGWC-17	HGWC-15
5/19/2016	5.81	6.51	7.45	6.62	7.27				
5/20/2016						7.58			
5/23/2016							7.15	6.4	6.17
5/24/2016									
7/11/2016	5.68	6.65		6.54	7.06	7.32			
7/12/2016			7.32				7.1	6.09	6.17
8/30/2016	5.63	7.14	7.43	6.38	7.28	7.69			
9/1/2016							7.29	6.35	6.22
10/19/2016	5.46	7.08	7.03		7.02				
10/20/2016				6.52		7.43			
10/24/2016									5.97
10/25/2016							7.03	6.23	
12/6/2016	5.38	7	7.08		7.09				
12/7/2016							6.85	6.23	5.87
12/8/2016				6.5		7.56			
1/24/2017	5.37	6.16	7.39	6.59	7.2	7.52			
1/26/2017							7.07	6.24	6.05
3/21/2017	4.9	6.07	6.83	6.55	7.01	7.4			
3/22/2017							7.15	6.25	
3/23/2017									5.79
5/22/2017	5.2		7.02		7.11				
5/23/2017		7.08		6.5		7.53			
5/24/2017							7.11		6.01
5/25/2017								6.27	
10/3/2017	5.3	6.45	7.47	6.63	7.21	7.51			
10/4/2017							7.17	6.18	5.82

Constituent: pH (SU) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWC-14	HGWC-18
5/19/2016		
5/20/2016		
5/23/2016	4.56	
5/24/2016		4.83
7/11/2016		
7/12/2016	4.49	4.58
8/30/2016		
9/1/2016	4.54	4.51
10/19/2016		
10/20/2016		
10/24/2016	4.63	
10/25/2016		4.53
12/6/2016		
12/7/2016	4.6	
12/8/2016		4.56
1/24/2017		
1/26/2017	4.8	4.61
3/21/2017		
3/22/2017		
3/23/2017	4.57	4.63
5/22/2017		
5/23/2017		
5/24/2017	4.61	
5/25/2017		4.69
10/3/2017		
10/4/2017	4.74	4.58

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWA-4 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-5 (bg)	HGWA-1 (bg)	HGWA-6 (bg)	HGWC-15	HGWC-17	HGWC-14
5/19/2016	1.22	48.6	42.3	25	66.9				
5/20/2016						34.4			
5/23/2016							424	395	1070
5/24/2016									
7/11/2016	3.7	45		27	41	34			
7/12/2016			44				440	460	1300
8/30/2016	6.8	42	40	23	36	36			
9/1/2016							440	430	1300
10/19/2016	11	44	43		46				
10/20/2016				19		36			
10/24/2016							420		280 (O)
10/25/2016								440	
12/6/2016	13	44	43		59				
12/7/2016							450	410	1300
12/8/2016				20		36			
1/24/2017	5.7	46	48	20	46	37			
1/26/2017							490	440	1400
3/21/2017	1.7	46	45	23	63	37			
3/22/2017								460	
3/23/2017							530		1500
5/22/2017		48	46		77				
5/23/2017	1.5			21		38			
5/24/2017							500		1400
5/25/2017								430	
10/3/2017	1.3 (B-01)	47 (B-01)	48 (B-01)	21 (B-01)	42 (B-01)	38 (B-01)			
10/4/2017							560	490	1400

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWC-16	HGWC-18
5/19/2016		
5/20/2016		
5/23/2016	203	
5/24/2016		834
7/11/2016		
7/12/2016	220	930
8/30/2016		
9/1/2016	220	890
10/19/2016		
10/20/2016		
10/24/2016		
10/25/2016	230	950
12/6/2016		
12/7/2016	220	
12/8/2016		910
1/24/2017		
1/26/2017	250	970
3/21/2017		
3/22/2017	240	
3/23/2017		980
5/22/2017		
5/23/2017		
5/24/2017	230	
5/25/2017		920
10/3/2017		
10/4/2017	220	870 (B-01)

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWA-4 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-5 (bg)	HGWA-1 (bg)	HGWA-6 (bg)	HGWC-15	HGWC-17	HGWC-14
5/19/2016	165	143	267	168	421				
5/20/2016						223			
5/23/2016							1270	1010	4130
5/24/2016									
7/11/2016	266	125		158	363	225			
7/12/2016			249				1100	976	3140
8/30/2016	292	168	254	141	330	232			
9/1/2016							1180	1060	3200
10/19/2016	338	176	357		380				
10/20/2016				99		225			
10/24/2016							1090		2920
10/25/2016								<25 (O)	
12/6/2016	356	145	285		377				
12/7/2016							1040	866	2740
12/8/2016				116		235			
1/24/2017	131	129	300	156	342	272			
1/26/2017							1260	1000	3080
3/21/2017	132	103	288	144	340	222			
3/22/2017								1080	
3/23/2017							1360		3060
5/22/2017		92	263		338				
5/23/2017	183			134		231			
5/24/2017							1320		3140
5/25/2017								1080	
10/3/2017	161	127	300	147	343	243			
10/4/2017							1340	1210	3210

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 7:21 PM View: 2. Interwell UPL - All Wells
Plant Hammond Client: Southern Company Data: Hammond Ash Pond2 20180125

	HGWC-16	HGWC-18
5/19/2016		
5/20/2016		
5/23/2016	570	
5/24/2016		1900
7/11/2016		
7/12/2016	585	1950
8/30/2016		
9/1/2016	625	2000
10/19/2016		
10/20/2016		
10/24/2016		
10/25/2016	563	1870
12/6/2016		
12/7/2016	561	
12/8/2016		1930
1/24/2017		
1/26/2017	608	1950
3/21/2017		
3/22/2017	599	
3/23/2017		2080
5/22/2017		
5/23/2017		
5/24/2017	598	
5/25/2017		1970
10/3/2017		
10/4/2017	626	2200