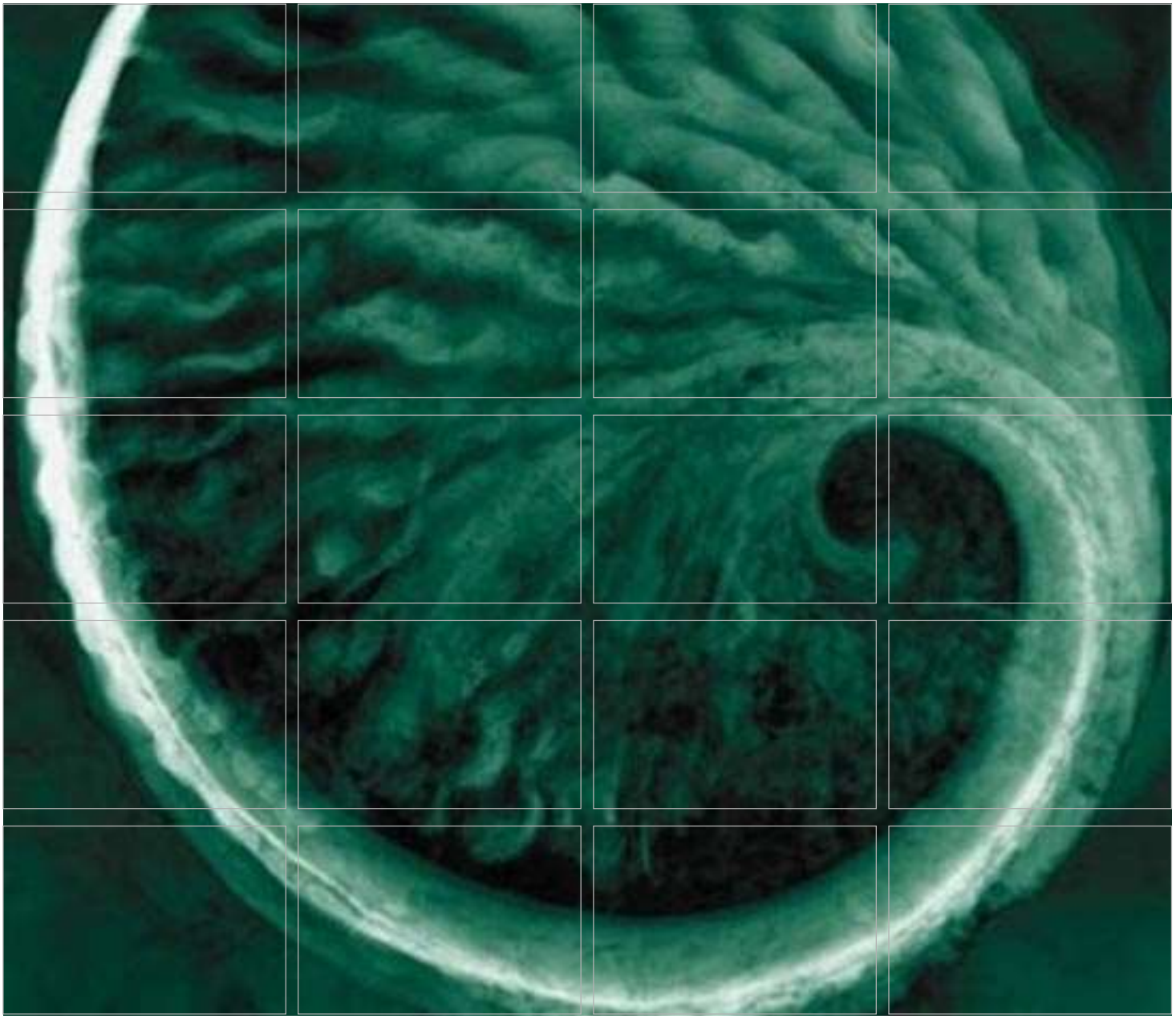

Prepared for:
Georgia Power Company

2017 Annual Groundwater Monitoring and Corrective Action Report

Plant Hammond Huffaker Road Landfill
Permit No. 057-022D (LI)

January 31, 2018

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2017 Annual Groundwater Monitoring and Corrective Action Report

Plant Hammond
Huffaker Road Landfill
Permit No. 057-022D(LI)

January 31, 2018

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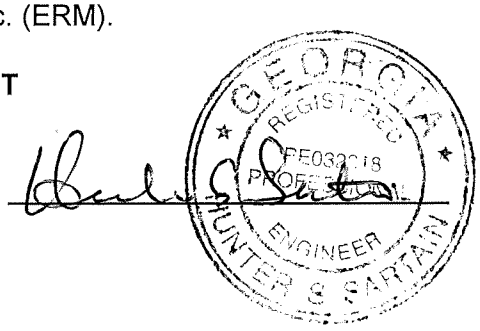
CERTIFICATION STATEMENT

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

CONSULTANT

Signature: 

Date: 1/31/18

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

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), Huffaker Road Landfill and satisfy the requirements of §257.90(e). Groundwater monitoring and reporting for the site is 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 Huffaker Road Landfill is located in Floyd County, approximately one mile west of the Rome city limit, and approximately four miles northeast of the site (Figure 1, Site Location Map). The Huffaker Road Landfill is approximately 205 acres and was built over a closed surface clay mine, previously owned by Boral Bricks, Inc. A letter dated May 26, 2006, from the Georgia Environmental Protection Division (GA EPD) to GPC approved permit number 057-022D (LI) for the Huffaker Road Landfill. Disposal at the site was approved by GA EPD in a letter dated April 23, 2008, and disposal commenced on May 5, 2008. No ash or gypsum was stored in the landfill prior to this date.

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 Huffaker Road Landfill is located above the Mississippian Floyd Shale member of the Judy Mountain Syncline (Cressler, 1970). The unit is composed of clay and shale, transitioning to limestone at its base. The site was previously a surface clay mine where most of the residual soil was removed for making bricks. Portions of the site now expose the underlying shale.

Boring logs from the Huffaker Road Landfill indicate sandy clayey silt and silty clay with rock fragments described as shale extending to depths varying from 0 feet to about 22 feet. Underlying this material is a medium gray to dark gray and dark olive gray, heavily to moderately weathered shale. Rock cores collected at the site are described as slightly weathered to unweathered, thinly bedded shale (Southern Company Services, 2002).

The site is underlain by a regional unconfined groundwater aquifer that occurs within the overburden. Groundwater recharge at Huffaker Road Landfill 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 a groundwater monitoring system within the uppermost aquifer at the Huffaker Road Landfill. The monitoring system is designed to monitor groundwater passing the waste boundary of the Huffaker Road Landfill 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 monitoring system shown on Figure 2.

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

2.1 MONITORING WELL INSTALLATION AND MAINTENANCE

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

The certified groundwater monitoring system consists of seventeen (17) wells installed between September 2001 and February 2007. Monitoring well locations are shown on Figure 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 Huffaker Road Landfill 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 section describes the methods used to conduct groundwater monitoring at the Huffaker Road Landfill.

3.1 GROUNDWATER ELEVATION MEASUREMENT

Prior to each sampling event, groundwater elevations were recorded from each well in the network at the Huffaker Road Landfill. 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 to the south, but ranges slightly southeast to southwest. The groundwater flow pattern observed during the October 2017 detection monitoring event is consistent with recordings made during the background monitoring period.

3.2 GROUNDWATER GRADIENT AND FLOW VELOCITY

The groundwater flow velocity at the Huffaker Road Landfill was calculated using a derivation of Darcy's Law. Specifically,

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

Where:

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

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

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

$n_e =$ Effective porosity

The average hydraulic conductivity value used in the calculations is 0.248 feet per day [ft/day] as presented in the *Plant Hammond Proposed Huffaker Road Coal Combustion By-Products Storage Facility Site Acceptability Report* (Southern Company Services, 2002) and was computed from the slug test data. The hydraulic gradient was calculated between wells GWA-1 and GWC-8 and GWC-9 and GWC-20. An estimated effective porosity of 0.20 is used for the flow rate calculations for wells screened in unweathered shale and clay soils, based on several resources (Driscoll, 1986; Southern Company Services, 2002; Freeze and Cherry, 1979) Groundwater flow velocities were calculated and are tabulated in Table 4, Groundwater Flow Velocity Calculations – October 2017. The average groundwater flow velocity across the site is 0.024 ft/day, 8.76 ft/year.

3.3 GROUNDWATER SAMPLING

Groundwater samples were collected in accordance with §257.93(a). 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
- ± 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. Both GPCEL and Pace are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain 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 the Huffaker Road Landfill.

4.1 STATISTICAL METHOD

The statistical test used to evaluate the groundwater monitoring data was the intrawell prediction limit (PL) method combined with a 1-of-3 resample plan. The intrawell PLs utilize historical data from within a given well to establish a statistical limit for comparison of compliance data at the same well. An “initial exceedance” occurs when any downgradient well data exceed the PL.

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

resamples exceed 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 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 15-50% non-detects, a non-detect adjustment such as the Kaplan-Meier or Regression on Order Statistics (ROS) method for adjustment of the mean and standard deviation will be used prior to constructing a parametric PL.
- Nonparametric PLs are used on data containing greater than 50% non-detects.

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

4.2 STATISTICAL ANALYSES RESULTS

Analytical data from the initial detection monitoring event in October 2017 the Huffaker Road Landfill was statistically analyzed in accordance with the PE - certified statistical method. Initial SSIs were verified through subsequent resampling and analysis. The statistical analysis and comparison to PLs are included as Appendix B.

Based on the statistical results presented in Appendix B, the following summarizes parameters exhibiting SSIs at each monitoring well:

- TDS: GWC-6 and GWC-8

Pursuant to §257.94(e), within 90 days from determining an SSI, GPC will either (1) prepare a demonstration that a source other than the Huffaker Road Landfill 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 the Huffaker Road Landfill and has

not implemented assessment monitoring. Therefore, statistical analysis of the Appendix IV data has not been performed.

5.0 MONITORING PROGRAM STATUS

The Huffaker Road Landfill is 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 the CCR unit was the cause, or (2) implement assessment monitoring per §257.95. GPC will address the reported SSIs at the Huffaker Road Landfill in accordance with the requirements, and options of §257.94(e)(1-3) and (f).

6.0 CONCLUSIONS & FUTURE ACTIONS

Statistical evaluations of the groundwater monitoring data for the Huffaker Road Landfill 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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Foucht Gap Rd NW

Huffaker Rd NW

Cells A & B

Huffaker Road Landfill

Cell E

Document Path: \\USATLDC01\Data\Atlanta\Projects\0372394 Southern Co Hammond Well Samp,GJ\Data Management\Hammond GIS\MXD\2017 09 HMP\F1_HUF_LF__Landfill_AerialSiteLoc.mxd

Legend

Landfill Boundary (Approximate)

N

0 800 1,600 2,400 3,200 4,000 Feet

1 inch = 800 feet

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SCALE	DRAWING NUMBER	SHEET	CONT'D	REV
	F1_HUF_LF__Landfill_AerialSiteLoc	1	As Shown	0

FIGURE 1

SITE LOCATION MAP

PLANT HAMMOND HUFFAKER ROAD LANDFILL
ROME, FLOYD COUNTY, GEORGIA

Legend

- Monitoring Well
- Landfill Boundary (Approximate)
- Roads

N

0 250 500 1,000 1,500 2,000 Feet

1 inch = 500 feet

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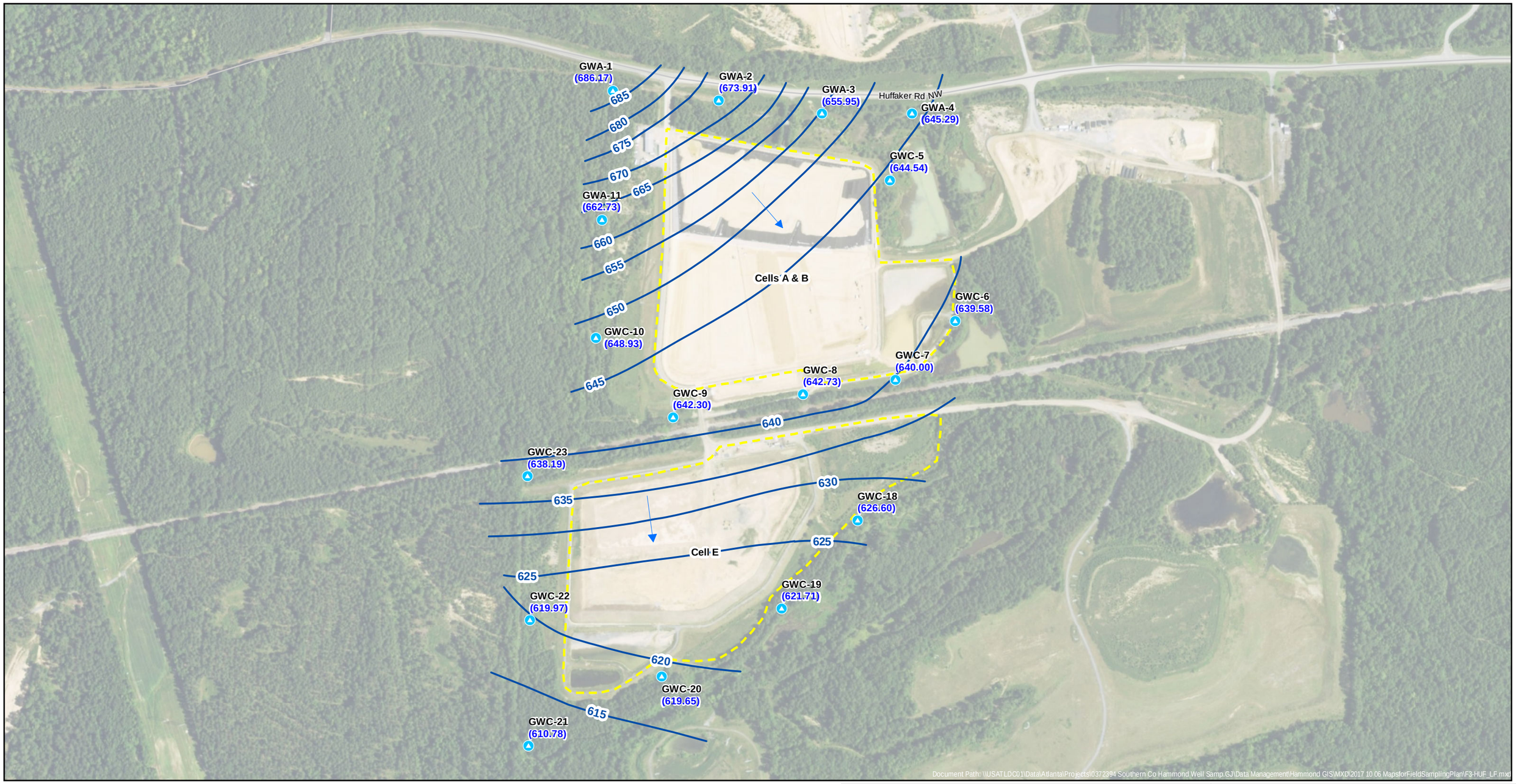
SCALE	DRAWING NUMBER	SHEET	CONT'D	REV
As Shown	F2-HUF_LF	2	As Shown	0

FIGURE 2

SITE PLAN AND WELL LOCATION MAP

PLANT HAMMOND HUFFAKER ROAD LANDFILL
ROME, FLOYD COUNTY, GEORGIA



Legend

- Monitoring Well
- Apparent Potentiometric Surface Contour
- Groundwater Flow Direction
- Landfill Boundary (Approximate)
- Roads

(621.71) = Groundwater Elevation (10/02/17, Feet Above Mean Sea Level, Ft MSL)

N

0 250 500 1,000 1,500 2,000 Feet

1 inch = 500 feet

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SCALE	DRAWING NUMBER	SHEET	CONT'D	REV
As Shown	F3-HUF_LF_GW_102017	2	As Shown	0

FIGURE 3

POTENTIOMETRIC SURFACE CONTOUR MAP - OCTOBER 2017
PLANT HAMMOND HUFFAKER ROAD LANDFILL
ROME, FLOYD COUNTY, GEORGIA

TABLE 1. MONITORING WELL NETWORK SUMMARY

Well ID	Hydraulic Location	Installation Date mm/dd/yyyy	Northing	Easting	Top of Casing Elevation (ft MSL)	Total Depth (ft)	Top of Screen Elevation (ft MSL)	Bottom of Screen Elevation (ft MSL)	Screen Length (ft)
GWA-1	Upgradient	9/11/2001	1565643.23	1952068.06	702.05	39.53	672.52	662.52	10
GWA-2	Upgradient	2/5/2007	1565589.74	1952641.00	681.46	25.62	665.84	655.84	10
GWA-3	Upgradient	2/6/2007	1565519.19	1953199.00	659.25	21.15	648.10	638.10	10
GWA-4	Upgradient	2/6/2007	1565518.65	1953686.93	656.87	21.21	645.66	635.66	10
GWC-5	Downgradient	2/7/2007	1565158.40	1953566.09	649.46	21.24	638.22	628.22	10
GWC-6	Downgradient	7/20/2006	1564396.99	1953919.43	656.37	42.60	623.77	613.77	10
GWC-7	Downgradient	7/19/2006	1564078.74	1953595.62	657.05	31.82	635.23	625.23	10
GWC-8	Downgradient	7/18/2006	1564000.11	1953095.59	656.63	27.10	639.53	629.53	10
GWC-9	Downgradient	7/18/2006	1563875.99	1952393.22	659.41	52.05	617.36	607.36	10
GWC-10	Downgradient	7/20/2006	1564307.60	1951975.60	667.52	33.99	643.53	633.53	10
GWA-11	Upgradient	7/21/2006	1564945.85	1952008.14	682.48	35.91	656.57	646.57	10
GWC-18	Downgradient	7/12/2006	1563319.48	1953391.01	641.30	56.65	594.65	584.65	10
GWC-19	Downgradient	7/11/2006	1562842.42	1952979.50	642.93	57.21	595.72	585.72	10
GWC-20	Downgradient	7/17/2006	1562472.09	1952332.09	625.65	34.06	601.59	591.59	10
GWC-21	Downgradient	7/12/2006	1562098.80	1951612.93	618.36	17.93	610.43	600.43	10
GWC-22	Downgradient	7/13/2006	1562778.11	1951618.87	624.92	41.75	593.17	583.17	10
GWC-23	Downgradient	7/19/2006	1563557.96	1951605.45	654.87	49.72	615.15	605.15	10

Notes:

Wells were constructed of 2-inch inside diameter American Society for Testing and Materials (ASTM) Schedule 40 PVC casing affixed to a pre-packed dual-wall slotted PVC screen.

ft = feet

MSL = mean sea level

TABLE 2. GROUNDWATER SAMPLING EVENT SUMMARY

Well ID	Hydraulic Location	Summary of Sampling Events											Status of Monitoring Well
		March 22-24, 2016	May 17-19, 2016	July 5-7, 2016	September 7-8, 2016	October 18-19, 2016	December 6-8, 2016	January 31-February 2, 2017	March 23-27, 2017	October 4-5, 2017	December 14, 2017	January 18, 2018	
Purpose of Sampling Event		**Background**	**Background**	**Background**	**Background**	**Background**	**Background**	**Background**	**Background**	**Detection**	**Verification**	**Verification**	
GWA-1	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWA-2	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWA-3	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWA-4	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWA-11	Upgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWC-5	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWC-6	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	V01	V02	Detection
GWC-7	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWC-8	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	V01	V02	Detection
GWC-9	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWC-10	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWC-18	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWC-19	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWC-20	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	V01	--	Detection
GWC-21	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWC-22	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection
GWC-23	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01	--	--	Detection

Notes:

BGXX = Background Event and Number

DXX = Detection Event Number

VXX = Verification Event Number

-- = Not sampled

TABLE 3. SUMMARY OF HISTORICAL GROUNDWATER ELEVATIONS

Well ID	Top of Casing Elevation (ft MSL)	Groundwater Elevations (ft MSL)								
		3/22/2016	5/16/2016	7/5/2016	9/7/2016	10/17/2016	12/5/2016	1/23/2017	3/20/2017	10/2/2017
GWA-1	702.05	690.44	686.99	684.71	682.25	681.24	681.31	687.84	691.04	686.17
GWA-2	681.46	675.67	674.83	673.37	670.24	669.26	669.18	675.11	675.27	673.91
GWA-3	659.25	654.28	653.66	653.65	650.34	649.48	653.65	655.68	654.60	655.95
GWA-4	656.87	647.21	645.48	644.46	643.06	642.13	642.41	648.14	648.16	645.29
GWA-11	682.48	666.40	664.58	663.79	660.33	659.55	662.15	663.29	666.48	662.73
GWC-5	649.46	644.80	644.01	643.89	642.72	641.94	643.03	645.18	644.93	644.54
GWC-6	656.37	641.73	640.25	639.17	637.64	636.74	636.78	639.47	641.24	639.58
GWC-7	657.05	643.25	641.27	639.72	638.01	637.10	636.62	639.90	642.46	640.00
GWC-8	656.63	645.91	644.25	642.59	640.78	639.94	639.18	641.55	644.57	642.73
GWC-9	659.41	646.17	644.46	642.51	639.96	638.99	639.01	642.86	645.57	642.30
GWC-10	667.52	653.89	651.58	648.27	646.64	645.70	644.76	644.91	652.16	648.93
GWC-18	641.30	628.71	628.03	627.19	624.46	623.60	626.65	628.28	628.72	626.60
GWC-19	642.93	625.37	623.97	623.10	620.86	619.87	619.78	623.74	624.41	621.71
GWC-20	625.65	622.22	620.84	619.60	617.48	616.58	616.69	620.69	621.87	619.65
GWC-21	618.36	613.25	612.16	610.47	607.58	606.68	607.06	614.65	613.73	610.78
GWC-22	624.92	623.01	621.48	620.43	617.40	616.31	618.28	622.02	623.33	619.97
GWC-23	654.87	646.61	642.38	639.39	634.89	633.86	632.94	636.77	645.04	638.19

Notes:
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)
GWA-1	GWC-8	686.17	642.73	0.248	0.20	43.44	1,940	0.022	0.027
GWC-9	GWC-20	642.30	619.65			22.65	1,410	0.016	0.020
									Avg.(ft/day)
									0.024

Notes:

K = hydraulic conductivity

i = hydraulic gradient

n_e = effective porosity

dh = difference between h_1 and h_2

h_1 and h_2 = groundwater elevation at location 1 and 2

L = distance between locations 1 and 2

ft = feet

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWA-1	GWA-1	GWA-1	GWA-1	GWA-1	GWA-1	GWA-1	GWA-1
			03/22/2016	05/17/2016	07/05/2016	09/07/2016	10/18/2016	12/06/2016	01/31/2017	03/23/2017
APPENDIX III	Boron	N/R	ND	ND	ND (0.0419 J)	ND (0.0174 J)	ND (0.0192 J)	ND (0.0182 J)	ND (0.0193 J)	ND (0.0192 J)
	Calcium	N/R	13.9	15.6	15.7	18.2	17.7	16.9	17.9	13.9
	Chloride	(250)	1.1933	1.14	1.4	1.0	1.1	1.0	1.2	1.1
	Fluoride	4	ND (0.119 J)	ND (0.1049 J)	ND (0.10 J)	ND (0.13 J)	ND (0.15 J)	ND (0.11 J)	ND (0.02 J)	ND (0.08 J)
	Sulfate	(250)	4.4409	4.43	4.6	4.8	4.7	4.7	5.1	4.7
	TDS	(500)	78	67	87	125	133	151	135	72
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0326	0.0387	0.0403	0.0413	0.0409	0.0408	0.0435	0.0380
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND (0.0004 J)	ND	ND	ND (0.0006 J)	ND (0.0006 J)	ND (0.0007 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.0109 J)	ND (0.0101 J)	ND (0.0095 J)	ND (0.0102 J)	ND (0.0108 J)	ND (0.0113 J)	ND (0.0115 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.00009 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	ND	1.30	0.651 U	0.224 U	0.513 U	0.317 U	0.102 U	0.190 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2	GWA-2
			03/22/2016	05/17/2016	07/05/2016	09/07/2016	10/18/2016	12/07/2016	01/31/2017	03/23/2017
APPENDIX III	Boron	N/R	ND (0.0828 J)	ND (0.0844 J)	ND (0.0962 J)	ND (0.0884 J)	ND (0.0889 J)	0.0954	0.0939	0.0869
	Calcium	N/R	47.4	45.5	40.5	37.3	46.6	43.5	39.2	38.7
	Chloride	(250)	2.0975	2.10	2.4	2.5	2.7	2.6	2.5	2.0
	Fluoride	4	ND (0.1252 J)	ND (0.1091 J)	ND (0.16 J)	ND (0.18 J)	ND (0.13 J)	ND (0.13 J)	ND (0.04 J)	ND (0.08 J)
	Sulfate	(250)	13.0789	15.3	15	16	16	15	13	12
	TDS	(500)	233	197	218	240	221	235	253	190
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND (0.0021 J)	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.197	0.178	0.182	0.172	0.174	0.167	0.176	0.157
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0115 J)	ND (0.0126 J)	ND (0.0108 J)	ND (0.0116 J)	ND (0.0119 J)	ND (0.0123 J)	ND (0.0121 J)	ND (0.0122 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.00009 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	ND	0.535 U	0.484 U	1.74	1.50	0.561 U	0.291 U	0.125 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWA-3	GWA-3	GWA-3	GWA-3	GWA-3	GWA-3	GWA-3	GWA-3
			03/22/2016	05/17/2016	07/05/2016	09/07/2016	10/18/2016	12/06/2016	02/01/2017	03/23/2017
APPENDIX III	Boron	N/R	0.135	0.132	0.161	0.163	0.154	0.142	0.143	0.150
	Calcium	N/R	79.3	75.8	65.3	59.8	72.4	78.6	85.0	81.2
	Chloride	(250)	4.0352	3.81	4.0	4.2	4.4	4.6	3.7	3.5
	Fluoride	4	ND (0.1415 J)	ND (0.1293 J)	ND (0.21 J)	ND (0.21 J)	ND (0.15 J)	ND (0.19 J)	0.35	0.39
	Sulfate	(250)	107.476	106	110	83	110	220	190	160
	TDS	(500)	451	430	418	443	415	653	615	506
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND (0.0009 J)	ND	ND	ND	ND
	Arsenic	0.01	ND	ND (0.00129 J)	ND (0.0010 J)	ND	ND	ND	ND	ND (0.0006 J)
	Barium	2	0.188	0.193	0.172	0.164	0.138	0.149	0.121	0.143
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND (0.0003 J)	ND	ND	ND (0.0007 J)	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0183 J)	ND (0.0188 J)	ND (0.0180 J)	ND (0.0195 J)	ND (0.0186 J)	ND (0.0214 J)	ND (0.0196 J)	ND (0.0210 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.00005 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	ND	0.855 U	0.536 U	0.768 U	2.24	0.531 U	0.648 U	0.605 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWA-4	GWA-4	GWA-4	GWA-4	GWA-4	GWA-4	GWA-4	GWA-4
			03/22/2016	05/17/2016	07/06/2016	09/07/2016	10/18/2016	12/06/2016	02/01/2017	03/24/2017
APPENDIX III	Boron	N/R	ND (0.0815 J)	ND (0.0838 J)	0.111	0.107	0.118	0.106	0.0949	0.0887
	Calcium	N/R	123	99.2	109	67.2	77.9	93.3	92.8	96.3
	Chloride	(250)	5.549	6.74	5.2	7.2	7.4	7.6	8.5	7.0
	Fluoride	4	ND (0.1754 J)	ND (0.1385 J)	ND (0.22 J)	ND (0.20 J)	ND (0.16 J)	ND (0.29 J)	0.48	ND (0.12 J)
	Sulfate	(250)	302.2975	213	280	160	120	210	200	140
	TDS	(500)	686	533	646	493	455	597	638	579
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0003 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND (0.0006 J)
	Barium	2	0.0397	0.0351	0.0475	0.0415	0.0424	0.0528	0.0482	0.0595
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND (0.0001 J)	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND (0.0004 J)
	Cobalt	N/R	ND	ND	ND (0.0004 J)	ND (0.0008 J)	ND	ND (0.0026 J)	ND (0.0013 J)	ND (0.0014 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0188 J)	ND (0.0193 J)	ND (0.0235 J)	ND (0.0153 J)	ND (0.0173 J)	ND (0.0195 J)	ND (0.0148 J)	ND (0.0159 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.00012 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	ND	0 U	0.416 U	0.874 U	1.41	0.616 U	0.941 U	0.103 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWA-11	GWA-11	GWA-11	GWA-11	GWA-11	GWA-11	GWA-11	GWA-11
			03/22/2016	05/17/2016	07/06/2016	09/07/2016	10/18/2016	12/06/2016	02/01/2017	03/24/2017
APPENDIX III	Boron	N/R	ND (0.0400 J)	ND (0.0358 J)	ND (0.0373 J)	ND (0.0352 J)	ND (0.0332 J)	ND (0.0330 J)	ND (0.0365 J)	ND (0.0343 J)
	Calcium	N/R	23.8	21.5	20.6	16.7	20.3	19.7	18.1	21.1
	Chloride	(250)	1.3137	1.29	1.6	1.5	1.6	1.2	2.1	1.3
	Fluoride	4	ND (0.0811 J)	ND (0.0706 J)	ND (0.09 J)	ND (0.04 J)	ND (0.07 J)	ND (0.13 J)	ND	ND (0.01 J)
	Sulfate	(250)	11.6823	11.4	12	13	13	12	13	12
	TDS	(500)	112	121	98	128	115	153	183	121
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0003 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0327	0.0323	0.0344	0.0324	0.0311	0.0311	0.0332	0.0320
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND (0.0018 J)	ND	ND
	Cobalt	N/R	ND	ND	ND (0.0009 J)	ND (0.0011 J)	ND (0.0011 J)	ND (0.0011 J)	ND (0.0011 J)	ND (0.0008 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND (0.00007 J)
	Lithium	N/R	ND (0.0110 J)	ND (0.0113 J)	ND (0.0100 J)	ND (0.0111 J)	ND (0.0106 J)	ND (0.0114 J)	ND (0.0102 J)	ND (0.0114 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.00016 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	ND	0.508 U	0.184 U	0.736 U	0.751 U	0.519 U	0.694 U	0.387 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5	GWC-5
			03/23/2016	05/17/2016	07/06/2016	09/07/2016	10/18/2016	12/08/2016	02/01/2017	03/23/2017
APPENDIX III	Boron	N/R	ND (0.0509 J)	ND (0.0565 J)	ND (0.0628 J)	ND (0.0648 J)	ND (0.0666 J)	0.0620	0.0516	0.0597
	Calcium	N/R	79.0	74.6	66.9	61.6	71.6	67.6	82.5	84.4
	Chloride	(250)	2.5045	2.47	2.9	2.8	2.8	3.1	3.8	3.4
	Fluoride	4	ND (0.0582 J)	ND (0.0571 J)	ND (0.29 J)	ND (0.08 J)	ND (0.09 J)	ND (0.06 J)	0.33	ND (0.07 J)
	Sulfate	(250)	76.011	76.2	74	64	65	100	150	130
	TDS	(500)	379	349	346	382	461	379	511	443
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0004 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0993	0.104	0.104	0.0945	0.0928	0.100	0.0972	0.105
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND (0.0007 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0277 J)	ND (0.0299 J)	ND (0.0281 J)	ND (0.0269 J)	ND (0.0269 J)	ND (0.0300 J)	ND (0.0305 J)	ND (0.0325 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.00016 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	ND	0.537 U	0.0227 U	0.549 U	0.989 U	1.87	1.20 U	0.299 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6	GWC-6
			03/23/2016	05/17/2016	07/06/2016	09/07/2016	10/18/2016	12/08/2016	02/01/2017	03/23/2017
APPENDIX III	Boron	N/R	ND (0.0379 J)	ND (0.0395 J)	ND (0.0393 J)	ND (0.0400 J)	ND (0.0366 J)	ND (0.0397 J)	ND (0.0381 J)	0.0416
	Calcium	N/R	64.1	62.8	59.5	53.7	62.3	58.8	59.6	62.9
	Chloride	(250)	1.7709	1.75	2.0	2.0	2.0	2.0	2.2	2.0
	Fluoride	4	ND (0.0791 J)	ND (0.0712 J)	ND (0.28 J)	ND (0.08 J)	ND (0.07 J)	ND (0.13 J)	ND (0.24 J)	ND (0.04 J)
	Sulfate	(250)	87.512	101	110	97	120	100	110	110
	TDS	(500)	310	280	280	324	307	281	354	302
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0005 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.156	0.168	0.171	0.154	0.159	0.156	0.163	0.161
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND (0.0001 J)	ND	ND
	Lithium	N/R	ND (0.0173 J)	ND (0.0193 J)	ND (0.0169 J)	ND (0.0181 J)	ND (0.0183 J)	ND (0.0176 J)	ND (0.0178 J)	ND (0.0204 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND (0.00014 J)	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	ND	1.05	0.307 U	0.321 U	0.498 U	1.42	1.14 U	0.349 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7	GWC-7
			03/23/2016	05/18/2016	07/06/2016	09/07/2016	10/18/2016	12/08/2016	02/02/2017	03/24/2017
APPENDIX III	Boron	N/R	ND (0.0574 J)	ND (0.0686 J)	ND (0.0675 J)	ND (0.0582 J)	ND (0.0577 J)	0.0572	0.0534	0.0532
	Calcium	N/R	45.2	46.5	29.1	19.2	22.6	17.5	54.4	56.8
	Chloride	(250)	1.1569	1.35	1.9	1.7	1.8	1.6	2.0	1.3
	Fluoride	4	ND (0.2004 J)	ND (0.1766 J)	0.39	0.53	ND (0.24 J)	ND (0.24 J)	ND (0.30 J)	ND (0.22 J)
	Sulfate	(250)	90.229	100	130	130	140	140	71	68
	TDS	(500)	253	276	239	247	233	373	236	291
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0013 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	0.00693	ND (0.00451 J)	0.0063	0.0065	0.0056	0.0065	ND (0.0020 J)	ND (0.0027 J)
	Barium	2	0.263	0.245	0.117	0.0703	0.0680	0.0791	0.170	0.181
	Beryllium	0.004	ND	ND	ND (0.0002 J)	ND (0.0002 J)	ND (0.0002 J)	ND (0.0003 J)	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND (0.0001 J)	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND (0.0011 J)
	Cobalt	N/R	0.0172	0.0210	0.0278	0.0334	0.0368	0.0419	0.0113	ND (0.0094 J)
	Lead	0.015	ND	ND	ND (0.0001 J)	ND	ND	ND	ND (0.0003 J)	ND (0.0002 J)
	Lithium	N/R	ND (0.0192 J)	ND (0.0284 J)	ND (0.0386 J)	ND (0.0410 J)	ND (0.0459 J)	ND (0.0430 J)	ND (0.0093 J)	ND (0.0084 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.08798	0.827 U	0.363 U	1.20	0.797 U	2.37	0.860 U	0.147 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND (0.0001 J)	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	GWC-8	GWC-8
			03/23/2016	05/18/2016	07/06/2016	09/08/2016	10/18/2016	12/08/2016	02/02/2017	03/24/2017
APPENDIX III	Boron	N/R	ND (0.0213 J)	ND (0.0280 J)	ND (0.0231 J)	ND (0.0234 J)	ND (0.0228 J)	ND (0.0251 J)	ND (0.0238 J)	ND (0.0234 J)
	Calcium	N/R	69.1	63.7	56.8	51.3	52.6	43.7	56.5	64.4
	Chloride	(250)	1.4936	1.35	1.6	1.4	1.4	1.5	1.7	2.1
	Fluoride	4	ND (0.1537 J)	ND (0.1414 J)	ND (0.15 J)	0.35	ND (0.17 J)	ND (0.15 J)	ND (0.10 J)	ND (0.14 J)
	Sulfate	(250)	26.3455	31.7	36	45	49	50	51	46
	TDS	(500)	239	236	218	225	200	196	231	250
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0002 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND (0.0005 J)
	Barium	2	0.0918	0.0957	0.0935	0.0925	0.0939	0.0996	0.0960	0.106
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND (0.00008 J)	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND (0.0002 J)	ND	ND
	Lithium	N/R	ND	ND	ND (0.0077 J)	ND (0.0096 J)	ND (0.0096 J)	ND (0.0093 J)	ND (0.0086 J)	ND (0.0079 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND (0.0007 J)	ND	ND	ND	ND	ND (0.0008 J)
	Radium	5	ND	0.543 U	0.213 U	0.956 U	0.502 U	1.39	0.0752 U	0.343 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9	GWC-9
			03/23/2016	05/18/2016	07/06/2016	09/08/2016	10/19/2016	12/08/2016	02/02/2017	03/27/2017
APPENDIX III	Boron	N/R	ND	ND (0.0202 J)	ND (0.0171 J)	ND (0.0157 J)	ND (0.0152 J)	ND (0.0178 J)	ND (0.0151 J)	ND (0.0203 J)
	Calcium	N/R	36.0	37.3	32.8	32.1	35.0	33.4	34.3	34.9
	Chloride	(250)	0.9561	0.972	1.3	1.0	1.1	1.3	1.6	1.4
	Fluoride	4	ND (0.0993 J)	ND (0.0936 J)	ND (0.09 J)	ND (0.11 J)	ND (0.10 J)	ND (0.11 J)	ND (0.05 J)	ND (0.07 J)
	Sulfate	(250)	61.8335	64.3	69	68	69	69	76	68
	TDS	(500)	204	215	204	201	272	227	209	305
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND (0.0012 J)	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0636	0.0629	0.0646	0.0630	0.0644	0.0648	0.0656	0.0619
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND (0.00008 J)	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND (0.0004 J)	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0152 J)	ND (0.0164 J)	ND (0.0151 J)	ND (0.0150 J)	ND (0.0158 J)	ND (0.0152 J)	ND (0.0161 J)	ND (0.0169 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	ND	0.769	0.000 U	0.485 U	0.810 U	0.779 U	0.0521 U	0.360 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10	GWC-10
			03/23/2016	05/17/2016	07/06/2016	09/07/2016	10/18/2016	12/06/2016	02/02/2017	03/27/2017
APPENDIX III	Boron	N/R	ND (0.0354 J)	ND (0.0349 J)	ND (0.0308 J)	ND (0.0283 J)	ND (0.0292 J)	ND (0.0287 J)	ND (0.0334 J)	ND (0.0396 J)
	Calcium	N/R	43.9	40.1	32.3	28.9	35.4	34.3	38.1	45.4
	Chloride	(250)	1.3507	1.28	1.5	1.5	1.4	1.3	1.8	1.7
	Fluoride	4	ND (0.1069 J)	ND (0.0991 J)	ND (0.09 J)	ND (0.13 J)	ND (0.16 J)	ND (0.12 J)	ND (0.07 J)	ND (0.05 J)
	Sulfate	(250)	14.6529	13.3	10	10	10	11	11	33
	TDS	(500)	182	178	135	165	113	194	160	252
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0005 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.132	0.122	0.101	0.0985	0.104	0.100	0.147	0.158
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND (0.00009 J)	ND
	Chromium	0.1	ND	ND (0.00424 J)	ND	ND	ND	ND (0.0013 J)	ND (0.0010 J)	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND (0.0100 J)	ND (0.0090 J)	ND (0.0090 J)	ND (0.0094 J)	ND (0.0097 J)	ND (0.0092 J)	ND (0.0107 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	ND	0.577 U	0.435 U	0.801 U	0.812 U	0.681 U	0.0634 U	0.546 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18	GWC-18
			03/24/2016	05/18/2016	07/07/2016	09/08/2016	10/19/2016	12/08/2016	02/02/2017	03/27/2017
APPENDIX III	Boron	N/R	0.122	0.139	0.120	0.126	0.133	0.119	0.132	0.134
	Calcium	N/R	40.7	41.9	36.8	35.9	38.7	39.4	41.5	39.1
	Chloride	(250)	1.1313	1.13	1.5	1.4	1.4	1.4	1.6	1.5
	Fluoride	4	ND (0.1459 J)	ND (0.1408 J)	ND (0.20 J)	ND (0.14 J)	ND (0.14 J)	ND (0.16 J)	ND (0.17 J)	ND (0.11 J)
	Sulfate	(250)	10.1818	9.58	9.6	9.4	9.9	14	13	12
	TDS	(500)	205	204	181	193	231	166	191	427
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND (0.0005 J)
	Barium	2	0.0818	0.0763	0.0747	0.0810	0.0840	0.0799	0.0813	0.0714
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND (0.00008 J)	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0141 J)	ND (0.0146 J)	ND (0.0136 J)	ND (0.0142 J)	ND (0.0148 J)	ND (0.0133 J)	ND (0.0149 J)	ND (0.0151 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND (0.0010 J)	ND	ND	ND	ND	ND (0.0015 J)
	Radium	5	ND	0.632 U	0.0302 U	0.358 U	0.396 U	0.667 U	0.000 U	0.344 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19	GWC-19
			03/24/2016	05/18/2016	07/06/2016	09/08/2016	10/18/2016	12/07/2016	02/02/2017	03/27/2017
APPENDIX III	Boron	N/R	0.173	0.186	0.184	0.173	0.171	0.203	0.187	0.182
	Calcium	N/R	43.9	48.2	45.8	40.9	45.5	40.6	42.4	45.5
	Chloride	(250)	1.6497	1.74	2.1	1.9	2.1	2.0	2.3	2.1
	Fluoride	4	ND (0.1652 J)	ND (0.1459 J)	ND (0.21 J)	ND (0.15 J)	ND (0.19 J)	ND (0.24 J)	ND (0.10 J)	ND (0.11 J)
	Sulfate	(250)	16.8473	18.4	17	16	19	13	14	18
	TDS	(500)	232	245	231	252	288	220	220	393
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0003 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.152	0.146	0.152	0.142	0.145	0.133	0.140	0.152
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0181 J)	ND (0.0179 J)	ND (0.0179 J)	ND (0.0175 J)	ND (0.0181 J)	ND (0.0190 J)	ND (0.0175 J)	ND (0.0194 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	ND	0.807 U	0.696 U	0.717 U	1.41	0.613 U	0.447 U	0.431 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20	GWC-20
			03/23/2016	05/18/2016	07/07/2016	09/08/2016	10/19/2016	12/07/2016	02/03/2017	03/27/2017
APPENDIX III	Boron	N/R	ND	ND (0.0229 J)	ND (0.0169 J)	ND (0.0178 J)	ND (0.0180 J)	ND (0.0248 J)	ND (0.0171 J)	ND (0.0181 J)
	Calcium	N/R	56.3	59.0	50.9	48.0	49.7	46.4	49.0	50.7
	Chloride	(250)	1.4238	1.57	1.7	1.5	1.7	1.8	2.0	1.8
	Fluoride	4	ND (0.0905 J)	ND (0.0864 J)	ND (0.16 J)	ND (0.08 J)	ND (0.09 J)	ND (0.11 J)	ND (0.06 J)	ND (0.04 J)
	Sulfate	(250)	22.9683	19.2	31	30	32	26	27	30
	TDS	(500)	208	213	212	201	276	186	219	239
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.115	0.128	0.124	0.121	0.117	0.110	0.123	0.112
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND (0.0064 J)	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND (0.00007 J)
	Lithium	N/R	ND (0.0100 J)	ND (0.0110 J)	ND (0.0097 J)	ND (0.0100 J)	ND (0.0105 J)	ND (0.0107 J)	ND (0.0109 J)	ND (0.0110 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND (0.0018 J)	ND	ND	ND
	Radium	5	ND	0.303 U	0.615 U	0.250 U	0.0680 U	0.650 U	0.0492 U	0.151 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-21	GWC-21	GWC-21	GWC-21	GWC-21	GWC-21	GWC-21	GWC-21
			03/24/2016	05/18/2016	07/07/2016	09/08/2016	10/19/2016	12/07/2016	02/02/2017	03/27/2017
APPENDIX III	Boron	N/R	ND (0.0232 J)	ND (0.0289 J)	ND (0.0313 J)	ND (0.0593 J)	ND (0.0870 J)	0.127	ND (0.0318 J)	ND (0.0225 J)
	Calcium	N/R	31.4	39.2	36.0	70.0	63.0	54.7	37.4	20.9
	Chloride	(250)	2.461	2.61	2.8	2.3	2.4	2.2	3.4	2.7
	Fluoride	4	ND (0.0445 J)	ND (0.0476 J)	ND (0.12 J)	ND (0.11 J)	ND (0.13 J)	ND (0.23 J)	ND (0.11 J)	ND (0.01 J)
	Sulfate	(250)	24.8075	26.2	31	33	31	19	52	29
	TDS	(500)	110	153	151	285	314	252	138	88
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND (0.0012 J)	ND	ND	ND	ND	ND
	Barium	2	0.0460	0.0557	0.0596	0.184	0.186	0.174	0.0783	0.0363
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND (0.0001 J)	ND	ND	ND	ND (0.0001 J)	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND (0.0016 J)	ND (0.0006 J)	ND (0.0006 J)	ND (0.0006 J)	ND	ND (0.0010 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND (0.0001 J)	ND	ND
	Lithium	N/R	ND	ND	ND	ND (0.0028 J)	ND (0.0033 J)	ND (0.0046 J)	ND	ND
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND (0.0008 J)	ND (0.0079 J)	0.0101	ND (0.0085 J)	ND (0.0023 J)	ND (0.0010 J)
	Radium	5	ND	0.353 U	0.391 U	0.869 U	0.668 U	0.810 U	0.259 U	0.393 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND (0.0017 J)	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
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7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
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TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-22	GWC-22	GWC-22	GWC-22	GWC-22	GWC-22	GWC-22	GWC-22
			03/23/2016	05/18/2016	07/07/2016	09/08/2016	10/19/2016	12/07/2016	02/02/2017	03/27/2017
APPENDIX III	Boron	N/R	ND (0.0649 J)	ND (0.0781 J)	ND (0.0621 J)	ND (0.0607 J)	ND (0.0733 J)	0.0758	0.0729	0.0698
	Calcium	N/R	49.9	50.7	45.5	46.8	47.3	45.3	49.9	45.8
	Chloride	(250)	1.2595	1.25	1.7	1.5	1.6	1.5	1.8	1.5
	Fluoride	4	ND (0.0886 J)	ND (0.0839 J)	ND (0.08 J)	ND (0.11 J)	ND (0.10 J)	ND (0.09 J)	ND (0.05 J)	ND (0.08 J)
	Sulfate	(250)	9.1183	6.88	6.8	6.8	7.5	11	9.9	8.4
	TDS	(500)	206	212	206	214	269	199	211	324
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0938	0.0983	0.121	0.0917	0.0910	0.0868	0.0939	0.0905
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0145 J)	ND (0.0152 J)	ND (0.0138 J)	ND (0.0137 J)	ND (0.0143 J)	ND (0.0153 J)	ND (0.0150 J)	ND (0.0157 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	ND	0.525 U	0.390 U	0.659 U	0.949 U	0.533 U	0.526 U	0.0746 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
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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.
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7. TDS indicates total dissolved solids.
8. U indicates the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.
9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

TABLE 5. PLANT HAMMOND HUFFAKER ROAD LANDFILL
ANALYTICAL DATA SUMMARY

Substance		MCL/ (SMCL)	Well ID							
			GWC-23	GWC-23	GWC-23	GWC-23	GWC-23	GWC-23	GWC-23	GWC-23
			03/23/2016	05/19/2016	07/07/2016	09/08/2016	10/19/2016	12/07/2016	02/03/2017	03/27/2017
APPENDIX III	Boron	N/R	ND	ND (0.0212 J)	ND (0.0183 J)	ND (0.0170 J)	ND (0.0203 J)	ND (0.0215 J)	0.0812	0.125
	Calcium	N/R	36.4	41.5	33.5	34.7	33.4	35.5	31.7	32.0
	Chloride	(250)	1.5409	1.23	1.7	1.6	1.6	1.7	1.9	1.7
	Fluoride	4	ND (0.1064 J)	ND (0.0928 J)	ND (0.13 J)	ND (0.12 J)	ND (0.10 J)	ND (0.10 J)	ND (0.12 J)	ND (0.14 J)
	Sulfate	(250)	6.2867	5.42	5.7	5.7	5.8	5.9	38	43
	TDS	(500)	168	173	144	179	209	156	276	295
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0533	0.0740	0.0766	0.0726	0.0720	0.0732	0.0619	0.0602
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND (0.00008 J)	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0182 J)	ND (0.0166 J)	ND (0.0154 J)	ND (0.0163 J)	ND (0.0168 J)	ND (0.0187 J)	ND (0.0123 J)	ND (0.0132 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND (0.0024 J)
	Radium	5	ND	0.222 U	0.493 U	0.371 U	0.689 U	0.226 U	0.606 U	0.492 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
	Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

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Appendix A
Analytical Data Reports

PACE ANALYTICAL SERVICES, LLC.

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

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAC0909
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

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

April 03, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-1	AAC0909-01	Water	03/23/17 12:52	03/24/17 14:20
GWA-2	AAC0909-02	Water	03/23/17 14:15	03/24/17 14:20
GWA-3	AAC0909-03	Water	03/23/17 15:34	03/24/17 14:20
GWC-5	AAC0909-04	Water	03/23/17 14:00	03/24/17 14:20
GWC-6	AAC0909-05	Water	03/23/17 15:08	03/24/17 14:20

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0909
Client ID: GWA-1
Date/Time Sampled: 3/23/2017 12:52:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0909-01
Date/Time Received: 3/24/2017 2:20:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	72	25	10	mg/L	SM 2540 C		1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	1.1	0.25	0.01	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 03:07	7030839	RLC
Fluoride	0.08	0.30	0.004	mg/L	EPA 300.0	J	1	03/28/17 09:48	03/29/17 03:07	7030839	RLC
Sulfate	4.7	1.0	0.09	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 03:07	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Barium	0.0380	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Boron	0.0192	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Calcium	13.9	5.00	0.522	mg/L	EPA 6020B	B-01	50	03/29/17 06:30	03/30/17 02:46	7030831	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Cobalt	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Nickel	0.0007	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Zinc	ND	0.0100	0.0013	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Lithium	0.0115	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 02:40	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:31	7030864	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0909
Client ID: GWA-2
Date/Time Sampled: 3/23/2017 2:15:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0909-02
Date/Time Received: 3/24/2017 2:20:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	190	25	10	mg/L	SM 2540 C		1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 03:28	7030839	RLC
Fluoride	0.08	0.30	0.004	mg/L	EPA 300.0	J	1	03/28/17 09:48	03/29/17 03:28	7030839	RLC
Sulfate	12	1.0	0.09	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 03:28	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Barium	0.157	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Boron	0.0869	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 06:30	03/31/17 15:19	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Calcium	38.7	25.0	0.522	mg/L	EPA 6020B	B-01	50	03/29/17 06:30	03/31/17 15:25	7030831	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Nickel	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Zinc	ND	0.0100	0.0013	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Lithium	0.0122	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:03	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:33	7030864	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0909
Client ID: GWA-3
Date/Time Sampled: 3/23/2017 3:34:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0909-03
Date/Time Received: 3/24/2017 2:20:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	506	25	10	mg/L	SM 2540 C		1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	3.5	0.25	0.01	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 03:48	7030839	RLC
Fluoride	0.39	0.30	0.004	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 03:48	7030839	RLC
Sulfate	160	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 19:29	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Barium	0.143	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Boron	0.150	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 06:30	03/31/17 15:30	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Calcium	81.2	25.0	0.522	mg/L	EPA 6020B	B-01	50	03/29/17 06:30	03/31/17 15:36	7030831	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Nickel	0.0022	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Zinc	0.0031	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Lithium	0.0210	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:14	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:36	7030864	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0909
Client ID: GWC-5
Date/Time Sampled: 3/23/2017 2:00:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0909-04
Date/Time Received: 3/24/2017 2:20:00PM

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	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	3.4	0.25	0.01	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 05:34	7030839	RLC
Fluoride	0.07	0.30	0.004	mg/L	EPA 300.0	J	1	03/28/17 09:48	03/29/17 05:34	7030839	RLC
Sulfate	130	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 19:50	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Barium	0.105	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Boron	0.0597	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 06:30	03/31/17 15:42	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Calcium	84.4	25.0	0.522	mg/L	EPA 6020B	B-01	50	03/29/17 06:30	03/31/17 15:48	7030831	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Cobalt	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Nickel	0.0008	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Zinc	0.0026	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Lithium	0.0325	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:26	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:38	7030864	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0909
Client ID: GWC-6
Date/Time Sampled: 3/23/2017 3:08:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0909-05
Date/Time Received: 3/24/2017 2:20:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	302	25	10	mg/L	SM 2540 C		1	03/29/17 16:28	03/29/17 16:28	7030887	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	03/28/17 09:48	03/29/17 05:56	7030839	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/28/17 09:48	03/29/17 05:56	7030839	RLC
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	03/28/17 09:48	03/29/17 20:10	7030839	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Barium	0.161	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Boron	0.0416	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 06:30	03/31/17 15:53	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Calcium	62.9	25.0	0.522	mg/L	EPA 6020B	B-01	50	03/29/17 06:30	03/31/17 15:59	7030831	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Nickel	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Zinc	0.0035	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Lithium	0.0204	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 03:37	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:59	7030865	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0909

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)						Prepared & Analyzed: 03/29/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030887-BS1)						Prepared & Analyzed: 03/29/17					
Total Dissolved Solids	411	25	10	mg/L	400.00		103	84-108			
Duplicate (7030887-DUP1)		**Source: AAC0909-05**				Prepared & Analyzed: 03/29/17					
Total Dissolved Solids	302	25	10	mg/L		302			0	10	
Duplicate (7030887-DUP2)		**Source: AAC0910-07**				Prepared & Analyzed: 03/29/17					
Total Dissolved Solids	ND	25	10	mg/L		10				10	

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Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0909

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)						Prepared & Analyzed: 03/28/17					
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)						Prepared & Analyzed: 03/28/17					
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)		**Source: AAC0858-02**				Prepared & Analyzed: 03/28/17					
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)		**Source: AAC0858-08**				Prepared: 03/28/17 Analyzed: 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)		**Source: AAC0858-02**				Prepared & Analyzed: 03/28/17					
Chloride	82.8	0.25	0.01	mg/L	10.010	81.8	10	90-110	0.5	15	QM-02
Fluoride	10.8	0.30	0.004	mg/L	10.020	0.34	105	90-110	0.8	15	
Sulfate	145	1.0	0.09	mg/L	10.020	150	NR	90-110	0.04	15	QM-02

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April 03, 2017

Report No.: AAC0909

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)						Prepared: 03/29/17 Analyzed: 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)						Prepared: 03/29/17 Analyzed: 03/30/17					
Antimony	0.109	0.0030	0.0003	mg/L	0.10000		109	80-120			
Arsenic	0.102	0.0050	0.0004	mg/L	0.10000		102	80-120			
Barium	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Beryllium	0.106	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	0.0011	mg/L	0.10000		110	80-120			

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April 03, 2017

Report No.: AAC0909

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)		**Source: AAC0909-01**			Prepared: 03/29/17 Analyzed: 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)		**Source: AAC0909-01**			Prepared: 03/29/17 Analyzed: 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	
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	3	20	
Nickel	0.107	0.0100	0.0003	mg/L	0.10000	0.0007	107	75-125	0.4	20	
Selenium	0.101	0.0100	0.0014	mg/L	0.10000	ND	101	75-125	5	20	
Silver	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125	0.9	20	
Thallium	0.0984	0.0010	0.00005	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	

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

April 03, 2017

Report No.: AAC0909

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)			**Source: AAC0909-01**			Prepared: 03/29/17 Analyzed: 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 7030864 - EPA 7470A											
Blank (7030864-BLK1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030864-BS1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0909

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030864 - EPA 7470A											
Matrix Spike (7030864-MS1)			**Source: AAC0880-02**			Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (7030864-MSD1)			**Source: AAC0880-02**			Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	0.3	20	
Post Spike (7030864-PS1)			**Source: AAC0880-02**			Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	1.72			ug/L	1.6667	-0.00214	103	80-120			
Batch 7030865 - EPA 7470A											
Blank (7030865-BLK1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030865-BS1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			
Matrix Spike (7030865-MS1)			**Source: AAC0909-05**			Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7030865-MSD1)			**Source: AAC0909-05**			Prepared: 03/29/17 Analyzed: 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)			**Source: AAC0909-05**			Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	1.72			ug/L	1.6667	-0.00556	103	80-120			

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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.

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 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®

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

CLIENT NAME: Georgia Power

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

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #:

laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4, & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)						LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:								P	P	P							
PRESERVATION:								3	7	3							
03/23/17	12:52	W		X	GWA-1	3		1	1	1						1	
03/23/17	14:15	W		X	GWA-2	3		1	1	1						2	
03/23/17	15:34	W		X	GWA-3	3		1	1	1						3	
03/23/17	14:00	W		X	GWC-5	3		1	1	1						4	
03/23/17	15:08	W		X	GWC-6	3		1	1	1						5	

CONTAINER TYPE / PRESERVATION

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

*MATRIX CODES:

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

SAMPLED BY AND TITLE: W.Virgo WFV, M.Burch MB, T.Thomas TT — DATE/TIME: 3/23/17 1545

RELINQUISHED BY: Will Virgo (FRM) — DATE/TIME: 3/23/17 0830

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY/LAB: Dalaman — DATE/TIME: 03/24/17 1420

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

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

FOR LAB USE ONLY
LAB #: AAC0909
Entered into LIMS: MR
Tracking #:

2017 03 23 Hammond COCs.xlsx

PACE ANALYTICAL SERVICES, LLC.

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

LOG-IN CHECKLIST **Printed: 3/27/2017 12:02:06PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 03/24/17 14:20

Work Order: AAC0909
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 5 **#Containers:** 20

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

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

April 19, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAC0909 Plant Hammond
Pace Project No.: 30214374

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
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

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

CERTIFICATIONS

Project: AAC0909 Plant Hammond
Pace Project No.: 30214374

Pennsylvania Certification IDs

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

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

SAMPLE SUMMARY

Project: AAC0909 Plant Hammond
Pace Project No.: 30214374

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30214374001	**GWA-1**	Water	03/23/17 12:52	03/28/17 10:10
30214374002	**GWA-2**	Water	03/23/17 14:15	03/28/17 10:10
30214374003	**GWA-3**	Water	03/23/17 15:34	03/28/17 10:10
30214374004	**GWC-5**	Water	03/23/17 14:00	03/28/17 10:10
30214374005	**GWC-6**	Water	03/23/17 15:08	03/28/17 10:10

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: AAC0909 Plant Hammond
Pace Project No.: 30214374

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30214374001	**GWA-1**	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214374002	**GWA-2**	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214374003	**GWA-3**	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214374004	**GWC-5**	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214374005	**GWC-6**	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0909 Plant Hammond
Pace Project No.: 30214374

Sample: GWA-1 **Lab ID: 30214374001** Collected: 03/23/17 12:52 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	**0.0256 ± 0.118 (0.303) C:80% T:NA**	pCi/L	04/07/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.164 ± 0.305 (0.670) C:72% T:84%**	pCi/L	04/13/17 12:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.190 ± 0.423 (0.973)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: GWA-2 **Lab ID: 30214374002** Collected: 03/23/17 14:15 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	**0.125 ± 0.131 (0.254) C:87% T:NA**	pCi/L	04/07/17 08:31	13982-63-3	
Radium-228	EPA 9320	**-0.0322 ± 0.274 (0.659) C:75% T:81%**	pCi/L	04/13/17 12:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.125 ± 0.405 (0.913)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: GWA-3 **Lab ID: 30214374003** Collected: 03/23/17 15:34 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	**0.286 ± 0.181 (0.284) C:82% T:NA**	pCi/L	04/07/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.319 ± 0.363 (0.760) C:73% T:82%**	pCi/L	04/13/17 12:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.605 ± 0.544 (1.04)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: GWC-5 **Lab ID: 30214374004** Collected: 03/23/17 14:00 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	**0.0795 ± 0.109 (0.228) C:85% T:NA**	pCi/L	04/07/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.219 ± 0.345 (0.746) C:77% T:83%**	pCi/L	04/13/17 12:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.299 ± 0.454 (0.974)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: GWC-6 **Lab ID: 30214374005** Collected: 03/23/17 15:08 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	**0.189 ± 0.147 (0.248) C:84% T:NA**	pCi/L	04/07/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.160 ± 0.306 (0.675) C:72% T:86%**	pCi/L	04/13/17 12:29	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0909 Plant Hammond
Pace Project No.: 30214374

Sample: GWC-6 **Lab ID: 30214374005** Collected: 03/23/17 15:08 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 Calculation	**0.349 ± 0.453 (0.923)**	pCi/L	04/19/17 06:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0909 Plant Hammond
Pace Project No.: 30214374

QC Batch: 253967 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30214374001, 30214374002, 30214374003, 30214374004, 30214374005

METHOD BLANK: 1250173 Matrix: Water
Associated Lab Samples: 30214374001, 30214374002, 30214374003, 30214374004, 30214374005

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.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0909 Plant Hammond
Pace Project No.: 30214374

QC Batch: 254543 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30214374001, 30214374002, 30214374003, 30214374004, 30214374005

METHOD BLANK: 1253320 Matrix: Water
Associated Lab Samples: 30214374001, 30214374002, 30214374003, 30214374004, 30214374005

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.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: AAC0909 Plant Hammond
Pace Project No.: 30214374

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

WO#:30214374

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAC0909 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 4/19/2017

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

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis Radium 226, 228, Total	LAB USE ONLY
1	GWA-1	G	3/23/2017 12:52	AAC0909-01	GW	2	X	001
2	GWA-2	G	3/23/2017 14:15	AAC0909-02	GW	2	X	002
3	GWA-3	G	3/23/2017 15:34	AAC0909-03	GW	2	X	003
4	GWC-5	G	3/23/2017 14:00	AAC0909-04	GW	2	X	004
5	GWC-6	G	3/23/2017 15:08	AAC0909-05	GW	2	X	005
6								
7								
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	MLaliman	3/27/17	RBig Pace	3/28/17 1010	EQuIS deliverable required (EDD 7564).
2					
3					

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

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

30214374

CHAIN OF CUSTODY RECORD

Pace Analytical

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

PAGE: ________ OF ________

CLIENT NAME: Georgia Power

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

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER
CONTAINER TYPE:							P	P	P	
PRESERVATION:							3	7	3	
03/23/17	12:52	W		X	GWA-1	3	1	1	1	1
03/23/17	14:15	W		X	GWA-2	3	1	1	1	2
03/23/17	15:34	W		X	GWA-3	3	1	1	1	3
03/23/17	14:00	W		X	GWC-5	3	1	1	1	4
03/23/17	15:08	W		X	GWC-6	3	1	1	1	5

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

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

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: W.Virgo WV, M.Burch MB, T.Thomas TT
DATE/TIME: 3/23/17 1545

RELINQUISHED BY: Will Virgo (ERM)
DATE/TIME: 3/23/17 0830

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: [signature]
DATE/TIME: 03/24/17 1420

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

pH checked: Yes (circled) No NA
Ice: Yes (circled) No NA
Temperature: 1°C Min 1°C Max
Custody Seal: Intact (circled) Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AAC0909
Entered into LIMS: [initials]
Tracking #:

2017 03 23 Hammond COCs.xlsx

Sample Condition Upon Receipt Pittsburgh

RTB

Pace Analytical

Client Name: Pace GA Project # 30214374

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

Tracking #: 6812 5103 2675

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

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: RTB 3/28/17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation.	X			15. pH<2
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed 3/28/17 RTB; Date/time of preservation; Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:			X	17.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: RTB Date: 3/28/17

Client Notification/ Resolution:

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

Comments/ Resolution: _____

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

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

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

Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: JC2
Date: 4/4/2017
Worklist: 34920
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1250173
MB concentration:	0.039
M/B Counting Uncertainty:	0.098
MB MDC:	0.239
MB Numerical Performance Indicator:	0.78
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS34920	LCSD34920
Count Date:	4/7/2017	4/7/2017
Spike I.D.:	17-003	17-003
Spike Concentration (pCi/mL):	38.230	38.230
Volume Used (mL):	0.25	0.25
Aliquot Volume (L, g, F):	0.504	0.501
Target Conc. (pCi/L, g, F):	18.964	19.059
Uncertainty (Calculated):	0.892	0.897
Result (pCi/L, g, F):	15.009	15.339
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.096	1.055
Numerical Performance Indicator:	-5.49	-5.27
Percent Recovery:	79.15%	80.48%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	LCS34920
Duplicate Sample I.D.	LCSD34920
Sample Result (pCi/L, g, F):	15.009
Sample Result Counting Uncertainty (pCi/L, g, F):	1.096
Sample Duplicate Result (pCi/L, g, F):	15.339
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.055
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	-0.425
Duplicate RPD:	2.17%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

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

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

4/18/17

Quality Control Sample Performance Assessment

Test: Ra-228
Analyst: JJY
Date: 4/8/2017
Worklist: 34998
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1253320
MB concentration:	-0.123
M/B Counting Uncertainty:	0.297
MB MDC:	0.731
MB Numerical Performance Indicator:	-0.81
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS34998	LCSD34998
Count Date:	4/13/2017	4/13/2017
Spike I.D.:	17-005	17-005
Spike Concentration (pCi/mL):	24.795	24.795
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.812	0.815
Target Conc. (pCi/L, g, F):	6.108	6.085
Uncertainty (Calculated):	0.440	0.438
Result (pCi/L, g, F):	5.638	6.026
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.731	0.847
Numerical Performance Indicator:	-1.08	-0.12
Percent Recovery:	92.30%	99.03%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Duplicate Sample Assessment		
Sample I.D.:	LCS34998	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD34998	
Sample Result (pCi/L, g, F):	5.638	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.731	
Sample Duplicate Result (pCi/L, g, F):	6.026	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.847	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.680	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.03%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

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

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

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

Comments:

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

April 29, 2016

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

RE: Workorder: 102462 CCR/State - Huffaker Rd

Dear Joju Abraham:

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

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

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

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

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

L. Biddy

lbbiddy@southernco.com

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

Respectfully submitted,

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

SAMPLE SUMMARY

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102462001	GWA-2	N/A	Water	3/22/2016 13:27	3/23/2016 08:25
102462002	GWA-1	N/A	Water	3/22/2016 15:47	3/23/2016 08:25
102462003	DUP-01	N/A	Water	3/22/2016 00:00	3/23/2016 08:25
102462004	GWA-11	N/A	Water	3/22/2016 17:03	3/23/2016 08:25
102462005	GWA-4	N/A	Water	3/22/2016 16:47	3/23/2016 08:25
102462006	GWA-3	N/A	Water	3/22/2016 14:01	3/23/2016 08:25

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462001**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-2**	**Date Collected:**	**3/22/2016 13:27**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/24/2016 11:40	KLW	3/28/2016 16:20	MRP	
Calcium	47.4	mg/L	0.100	0.500	3/24/2016 11:40	KLW	3/28/2016 16:20	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 13:17	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 13:17	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0115J	mg/L	0.0100	0.0500	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Boron	0.0828J	mg/L	0.0200	0.100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Barium	0.197	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 14:44	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/30/2016 07:53	LBB	
Sulfate	13.0789	mg/L	0.3000	1.00			3/30/2016 07:53	LBB	
Chloride	2.0975	mg/L	0.0400	0.2500			3/30/2016 07:53	LBB	
Fluoride	0.1252J	mg/L	0.0100	0.3000			3/30/2016 07:53	LBB	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462001**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-2**	**Date Collected:**	**3/22/2016 13:27**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/24/2016 15:35	KLW	
TDS	233	mg/L	25	25			3/24/2016 15:35	KLW	

CERTIFICATE OF ANALYSIS

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

ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462002**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-1**	**Date Collected:**	**3/22/2016 15:47**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/24/2016 11:40	KLW	3/28/2016 16:26	MRP	
Calcium	13.9	mg/L	0.100	0.500	3/24/2016 11:40	KLW	3/28/2016 16:26	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 13:20	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 13:20	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Barium	0.0326	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:06	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/30/2016 08:32	LBB	
Sulfate	4.4409	mg/L	0.3000	1.00			3/30/2016 08:32	LBB	
Chloride	1.1933	mg/L	0.0400	0.2500			3/30/2016 08:32	LBB	
Fluoride	0.119J	mg/L	0.0100	0.3000			3/30/2016 08:32	LBB	

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462002**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-1**	**Date Collected:**	**3/22/2016 15:47**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/24/2016 15:35	KLW	
TDS	78	mg/L	25	25			3/24/2016 15:35	KLW	

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ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462003**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**DUP-01**	**Date Collected:**	**3/22/2016 00:00**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/24/2016 11:40	KLW	3/28/2016 16:56	MRP	
Calcium	14.2	mg/L	0.100	0.500	3/24/2016 11:40	KLW	3/28/2016 16:56	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 13:23	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 13:23	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Barium	0.0344	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:11	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/30/2016 09:10	LBB	
Sulfate	4.3506	mg/L	0.3000	1.00			3/30/2016 09:10	LBB	
Chloride	1.1715	mg/L	0.0400	0.2500			3/30/2016 09:10	LBB	
Fluoride	0.1183J	mg/L	0.0100	0.3000			3/30/2016 09:10	LBB	

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ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462003**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**DUP-01**	**Date Collected:**	**3/22/2016 00:00**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/24/2016 15:35	KLW	
TDS	75	mg/L	25	25			3/24/2016 15:35	KLW	

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ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462004**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-11**	**Date Collected:**	**3/22/2016 17:03**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/24/2016 11:40	KLW	3/28/2016 17:02	MRP	
Calcium	23.8	mg/L	0.100	0.500	3/24/2016 11:40	KLW	3/28/2016 17:02	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 13:25	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 13:25	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0110J	mg/L	0.0100	0.0500	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Boron	0.0400J	mg/L	0.0200	0.100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Barium	0.0327	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:17	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/30/2016 09:49	LBB	
Sulfate	11.6823	mg/L	0.3000	1.00			3/30/2016 09:49	LBB	
Chloride	1.3137	mg/L	0.0400	0.2500			3/30/2016 09:49	LBB	
Fluoride	0.0811J	mg/L	0.0100	0.3000			3/30/2016 09:49	LBB	

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ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462004**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-11**	**Date Collected:**	**3/22/2016 17:03**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/24/2016 15:35	KLW	
TDS	112	mg/L	25	25			3/24/2016 15:35	KLW	

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ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462005**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-4**	**Date Collected:**	**3/22/2016 16:47**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/24/2016 11:40	KLW	3/29/2016 11:44	MRP	
Calcium	123	mg/L	0.500	2.50	3/24/2016 11:40	KLW	3/29/2016 11:44	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 13:28	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 13:28	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0188J	mg/L	0.0100	0.0500	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Boron	0.0815J	mg/L	0.0200	0.100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Barium	0.0397	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:22	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/30/2016 10:27	LBB	
Sulfate	302.2975	mg/L	7.50	25.0			3/30/2016 16:13	LBB	
Chloride	5.549	mg/L	0.2000	1.25			3/30/2016 15:34	LBB	
Fluoride	0.1754J	mg/L	0.0100	0.3000			3/30/2016 10:27	LBB	

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ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462005**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-4**	**Date Collected:**	**3/22/2016 16:47**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/24/2016 15:35	KLW	
TDS	686	mg/L	25	25			3/24/2016 15:35	KLW	

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ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462006**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-3**	**Date Collected:**	**3/22/2016 14:01**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/24/2016 11:40	KLW	3/29/2016 11:50	MRP	
Calcium	79.3	mg/L	0.500	2.50	3/24/2016 11:40	KLW	3/29/2016 11:50	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 13:36	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 13:36	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0183J	mg/L	0.0100	0.0500	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Boron	0.135	mg/L	0.0200	0.100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Barium	0.188	mg/L	0.00200	0.0100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/24/2016 11:50	KLW	4/4/2016 15:49	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/30/2016 17:29	LBB	
Sulfate	107.476	mg/L	3.00	10.0			3/30/2016 17:29	LBB	
Chloride	4.0352	mg/L	0.0800	0.5000			3/30/2016 16:51	LBB	
Fluoride	0.1415J	mg/L	0.0100	0.3000			3/30/2016 11:05	LBB	

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ANALYTICAL RESULTS

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID:	**102462006**	**Date Received:**	**3/23/2016 08:25**
Sample ID:	**GWA-3**	**Date Collected:**	**3/22/2016 14:01**
Sample Description	**Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/24/2016 15:35	KLW	
TDS	451	mg/L	25	25			3/24/2016 15:35	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102462 CCR/State - Huffaker Rd

PARAMETER QUALIFIERS

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

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

QUALITY CONTROL DATA

Workorder: 102462 CCR/State - Huffaker Rd

QC Batch: DIGM/4226 Analysis Method: EPA 6010D

QC Batch Method: EPA 3005A

Associated Lab Samples: 102462001, 102462002, 102462003, 102462004, 102462005, 102462006, 102464001, 102464002, 102464003, 102468001, 102468002, 102468003, 102468004, 102468005, 102468006, 102468007

METHOD BLANK: 104236

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

LABORATORY CONTROL SAMPLE: 104237

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

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

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 102462 CCR/State - Huffaker Rd

QC Batch: DIGM/4227 Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Associated Lab Samples: 102462001, 102462002, 102462003, 102462004, 102462005, 102462006, 102464001, 102464002, 102464003, 102468001, 102468002, 102468003, 102468004, 102468005, 102468006, 102468007

METHOD BLANK: 104240

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	
Vanadium	mg/L	<0.0100	0.0100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Nickel	mg/L	<0.0100	0.0100	
Copper	mg/L	<0.0250	0.0250	
Zinc	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	
Silver	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 104241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Lithium	mg/L	0.2	0.229	115	80-120	
Beryllium	mg/L	0.1	0.110	110	80-120	
Boron	mg/L	0.1	0.116	116	80-120	
Vanadium	mg/L	0.1	0.104	104	80-120	
Chromium	mg/L	0.1	0.110	110	80-120	
Cobalt	mg/L	0.1	0.109	109	80-120	
Nickel	mg/L	0.1	0.108	108	80-120	
Copper	mg/L	0.1	0.113	113	80-120	
Zinc	mg/L	0.1	0.106	106	80-120	
Arsenic	mg/L	0.1	0.0995	99.5	80-120	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 102462 CCR/State - Huffaker Rd

LABORATORY CONTROL SAMPLE: 104241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Selenium	mg/L	0.1	0.0992	99.2	80-120	
Molybdenum	mg/L	0.1	0.0978	97.8	80-120	
Silver	mg/L	0.1	0.104	104	80-120	
Cadmium	mg/L	0.1	0.0987	98.7	80-120	
Antimony	mg/L	0.1	0.102	102	80-120	
Barium	mg/L	0.1	0.102	102	80-120	
Thallium	mg/L	0.1	0.104	104	80-120	
Lead	mg/L	0.1	0.106	106	80-120	

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

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.0115	0.2	0.197	0.200	92.7	94.2	75-125	1.6	20	
Beryllium	mg/L	2.4e-005	0.1	0.0911	0.0924	91.1	92.4	75-125	1.4	20	
Boron	mg/L	0.0828	0.1	0.176	0.178	93.2	95.1	75-125	2	20	
Vanadium	mg/L	0	0.1	0.102	0.105	102	105	75-125	2.9	20	
Chromium	mg/L	0.00018	0.1	0.104	0.106	103	106	75-125	2.9	20	
Cobalt	mg/L	2.3e-005	0.1	0.102	0.104	102	104	75-125	1.9	20	
Nickel	mg/L	0.00035	0.1	0.0987	0.101	98.3	101	75-125	2.7	20	
Copper	mg/L	0.00023	0.1	0.103	0.106	103	106	75-125	2.9	20	
Zinc	mg/L	0.00029	0.1	0.100	0.103	100	103	75-125	3	20	
Arsenic	mg/L	0.00014	0.1	0.0999	0.102	99.8	102	75-125	2.2	20	
Selenium	mg/L	6.7e-005	0.1	0.0971	0.0986	97	98.6	75-125	1.6	20	
Molybdenum	mg/L	1.9e-005	0.1	0.101	0.103	101	103	75-125	2	20	
Silver	mg/L	1e-005	0.1	0.101	0.101	101	101	75-125	0	20	
Cadmium	mg/L	9e-006	0.1	0.0966	0.0986	96.6	98.6	75-125	2	20	
Antimony	mg/L	0.00047	0.1	0.101	0.103	101	103	75-125	2	20	
Barium	mg/L	0.197	0.1	0.297	0.302	99.9	105	75-125	5	20	
Thallium	mg/L	8e-006	0.1	0.102	0.104	102	104	75-125	1.9	20	
Lead	mg/L	3.1e-005	0.1	0.103	0.105	103	105	75-125	1.9	20	

CERTIFICATE OF ANALYSIS

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

QUALITY CONTROL DATA

Workorder: 102462 CCR/State - Huffaker Rd

QC Batch: GRAV/2812 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples: 102462001, 102462002, 102462003, 102462004, 102462005, 102462006, 102464001, 102464002, 102464003, 102468001, 102468002, 102468003, 102468004, 102468005, 102468006, 102468007

METHOD BLANK: 104253

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

LABORATORY CONTROL SAMPLE: 104254

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

SAMPLE DUPLICATE: 104255 Original: 102464002

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

SAMPLE DUPLICATE: 104316 Original: 102468007

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

CERTIFICATE OF ANALYSIS

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

QUALITY CONTROL DATA

Workorder: 102462 CCR/State - Huffaker Rd

QC Batch: HGPR/1637 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 102462001, 102462002, 102462003, 102462004, 102462005, 102462006, 102464001, 102464002, 102464003, 102468001, 102468002, 102468003, 102468004, 102468005, 102468006, 102468007, 102472001, 102472002, 102472003, 102472004

METHOD BLANK: 104267

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

METHOD BLANK: 104273

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

LABORATORY CONTROL SAMPLE: 104268

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

LABORATORY CONTROL SAMPLE: 104269

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

LABORATORY CONTROL SAMPLE: 104274

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

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 102462 CCR/State - Huffaker Rd

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104270 104271 Original: 102462005

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Mercury	mg/L	2.9e-006	0.002	0.00208	0.00207	104	103	80-120	0.97	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104275 104276 Original: 102468004

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	8.9e-006	0.002	0.00204	0.00208	102	104	80-120	1.9	20	

SAMPLE DUPLICATE: 104272 Original: 102462006

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

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 102462 CCR/State - Huffaker Rd

QC Batch: IC/3004 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 102462001, 102462002, 102462003, 102462004, 102462005, 102462006, 102464001, 102464002, 102464003, 102468001, 102468002, 102468003, 102468004, 102468005, 102468006, 102468007, 102472001, 102472002, 102472003, 102472004, 102534001, 102534002

METHOD BLANK: 104385

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

METHOD BLANK: 104455

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

LABORATORY CONTROL SAMPLE: 104378

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

LABORATORY CONTROL SAMPLE: 104386

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

LABORATORY CONTROL SAMPLE: 104456

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5433	109	90-110	

CERTIFICATE OF ANALYSIS

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Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 102462 CCR/State - Huffaker Rd

LABORATORY CONTROL SAMPLE: 104456

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

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

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

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

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
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Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102462001	GWA-2	EPA 3005A	DIGM/4226	EPA 6010D	ICP/4951
102462002	GWA-1	EPA 3005A	DIGM/4226	EPA 6010D	ICP/4951
102462003	DUP-01	EPA 3005A	DIGM/4226	EPA 6010D	ICP/4951
102462004	GWA-11	EPA 3005A	DIGM/4226	EPA 6010D	ICP/4951
102462005	GWA-4	EPA 3005A	DIGM/4226	EPA 6010D	ICP/4951
102462006	GWA-3	EPA 3005A	DIGM/4226	EPA 6010D	ICP/4951
102462001	GWA-2	EPA 3005A	DIGM/4227	EPA 6020B	ICPM/1040
102462002	GWA-1	EPA 3005A	DIGM/4227	EPA 6020B	ICPM/1040
102462003	DUP-01	EPA 3005A	DIGM/4227	EPA 6020B	ICPM/1040
102462004	GWA-11	EPA 3005A	DIGM/4227	EPA 6020B	ICPM/1040
102462005	GWA-4	EPA 3005A	DIGM/4227	EPA 6020B	ICPM/1040
102462006	GWA-3	EPA 3005A	DIGM/4227	EPA 6020B	ICPM/1040
102462001	GWA-2	SM 2540C	GRAV/2812		
102462002	GWA-1	SM 2540C	GRAV/2812		
102462003	DUP-01	SM 2540C	GRAV/2812		
102462004	GWA-11	SM 2540C	GRAV/2812		
102462005	GWA-4	SM 2540C	GRAV/2812		
102462006	GWA-3	SM 2540C	GRAV/2812		
102462001	GWA-2	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102462002	GWA-1	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102462003	DUP-01	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102462004	GWA-11	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102462005	GWA-4	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102462006	GWA-3	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102462001	GWA-2	EPA 300	IC/3004		
102462002	GWA-1	EPA 300	IC/3004		
102462003	DUP-01	EPA 300	IC/3004		
102462004	GWA-11	EPA 300	IC/3004		
102462005	GWA-4	EPA 300	IC/3004		

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102462 CCR/State - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102462006	GWA-3	EPA 300	IC/3004		

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
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LABORATORY CERTIFICATIONS

Workorder: 102462 CCR/State - Huffaker Rd

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY — Work Order No. 102462 — Reviewed By: [signature] 3-23-16

12 Page ____ of ____

13 Standard Turnaround Time: X

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

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

Sample Shipment Date: 8 3/22/2016
Sampled By: 9 Tracy Wardell (TW), Myles Rogers (MR), William Virgo (WV), Gregory Jirak (GJ)
Print Name / *Signature*
Sample Received Date: 10 3/23/16 @ 8:25
Sample Received By: 11 [signature]
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Sample Type Key: 23 — G-Grab, C-Composite, O-Other

Matrix Key: 24 — O-Oil, S-Solid, SL-Sludge, W-Wipe, LQ-Liquid, SW-Surface Water, GW-Ground Water, WW-Waste Water, DW-Drinking Water, OW-Other Water

Preservative Key: 25 — H-Hydrochloric Acid, N-Nitric Acid, S-Sulfuric Acid, SH-Sodium Hydroxide, P-Phosphoric Acid, ST-Sodium Thiosulfate, I-Ice, U-Unpreserved, O-Other (Specify) ____

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 16 Date	Collection 16 Time	Sample Description 17	Sample Type 18	Matrix 19	No. of Containers 20	Metals App. III + IV EPA 6020 + EPA 7470 (Preservative: HNO3 N)	Hammond State GW Attached EPA 6020 + EPA 7470 (Preservative: HNO3 N)	Cl, F, SO4 EPA 300 TDS SM2540C (Preservative: Ice I)	Radium 226+228 Ga Tech (Preservative: HNO3 N)				LAB USE ONLY 26 Comments
102462001	GWA-2	3/22/16	13:27	Huffaker Rd	G	GW	3	X	X	X	X				
2	GWA-1	3/22/16	15:47	Huffaker Rd	G	GW	3	X	X	X	X				
3	DUP-01	3/22/16		Huffaker Rd	G	GW	3	X	X	X	X				

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: 28 [signature] Seal #20160322-1	Date/Time 3/22/2016 19:45	
Received by: 29	Date/Time	
Relinquished by:	Date/Time	
Received by:	Date/Time	

LAB USE ONLY: Sample Receipt Information 30
2.3°C (GPEL-IR-3P), with ice, cooler in good condition, no seal AMJ 3/23/16
PHL2, Hand. Missing collection time on DUP-01.

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 1024602
Reviewed By: 3-23-16

[12] Page _____ of _____

[13] Standard Turnaround Time: [X]
# of Business Days (Rush): [ ]
(Must be cleared through Env. Lab. prior to shipment)

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

Sample Shipment Date: [8] 3/22/2016
Sampled By: [9] Tracy Wardell (TCW), Myles Rogers (MR), William Virgo (WV) Gregory Jirak (GJ)
Print Name / Signature
Sample Received Date: [10] 3/23/16 @ 8:25
Sample Received By: [11]
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE [21]

HNO_3	HNO_3	ICE	HNO_3			
N	N	I	H			

ANALYSIS REQUESTED [22]

Sample Type Key: [23]
G-Grab C-Composite
O-Other

Matrix Key: [24]
O-Oil SW-Surface Water
S-Solid GW-Ground Water
SL-Sludge WW-Waste Water
W-Wipe DW-Drinking Water
LQ-Liquid OW-Other Water

Preservative Key: [25]
H-Hydrochloric Acid
N-Nitric Acid
S-Sulfuric Acid
SH-Sodium Hydroxide
P-Phosphoric Acid
ST-Sodium Thiosulfate
I-Ice
U-Unpreserved
O-Other (Specify) _____

LAB USE ONLY [14] LAB ID	Sample Number [15]	Collection [16] Date	Time	Sample Description [17]	18 Sample Type	19 Matrix	20 No. of Containers	Metals 6PP + Hg EPA 6020 & EPA 7470	Hammond State GW Attached EPA 6020 & EPA 7470	Cl, FSO_4 EPA 300	TDS SM2540C	Radium 226+228 Ga Tech				LAB USE ONLY [26] Comments
1024602004	GWA-11	3/22/16	17:03	Huffaker Rd.	G	GW	3	X	X	X	X					
5	GWA-4	3/22/16	16:47	Huffaker Rd.	G	GW	3	X	X	X	X					
6	GWA-3	3/22/16	14:01	Huffaker Rd.	G	GW	3	X	X	X	X					

FOR CHAIN OF CUSTODY USE ONLY [27]

Relinquished by: [28] Seal # 20160322-2 Date/Time 3/22/2016 19:45
Received by: [29] Date/Time
Relinquished by: Date/Time
Received by: Date/Time

LAB USE ONLY: Sample Receipt Information [30]
1.6°C (GPEL-IR-3P), with ice, cooler in good Condition, Seal, AHL2 Hand.

Page 28 of 29

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client: Hammond **# of Samples:** 6
Workorder No.: 102462 **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	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	2.3
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	False	Missing collection time on DUP-01 on sample container label and on COC.
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:

Completed By: Jassim, Ayssar **Date:** 03/23/2016

ENVIRONMENTAL LABORATORY

Georgia Power Environmental Laboratories
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Atlanta, Ga. 30339
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May 12, 2016

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

RE: Workorder: 102472 CCR/State - Huffaker Rd

Dear Joju Abraham:

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

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

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

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

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

L. Biddy

lbbiddy@southernco.com

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

Respectfully submitted,

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

CERTIFICATE OF ANALYSIS

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SAMPLE SUMMARY

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102472001	GWC-5	N/A	Water	3/23/2016 10:59	3/24/2016 08:25
102472002	GWC-6	N/A	Water	3/23/2016 11:11	3/24/2016 08:25
102472003	Dup-2	N/A	Water	3/23/2016 00:00	3/24/2016 08:25
102472004	GWC-7	N/A	Water	3/23/2016 13:06	3/24/2016 08:25
102472005	GWC-10	N/A	Water	3/23/2016 12:31	3/24/2016 08:25
102472006	GWC-22	N/A	Water	3/23/2016 14:51	3/24/2016 08:25
102472007	GWC-9	N/A	Water	3/23/2016 14:52	3/24/2016 08:25
102472008	GWC-8	N/A	Water	3/23/2016 16:12	3/24/2016 08:25
102472009	GWC-23	N/A	Water	3/23/2016 18:10	3/24/2016 08:25
102472010	GWC-20	N/A	Water	3/23/2016 18:32	3/24/2016 08:25

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472001**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-5**	**Date Collected:**	**3/23/2016 10:59**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/29/2016 13:21	MRP	
Calcium	79.0	mg/L	0.500	2.50	3/28/2016 11:10	KLW	3/29/2016 13:21	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 14:27	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 14:27	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0277J	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Boron	0.0509J	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Zinc	0.00272J	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Barium	0.0993	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 11:33	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/31/2016 15:35	LBB	
Sulfate	76.011	mg/L	3.00	10.0			3/31/2016 15:35	LBB	
Chloride	2.5045	mg/L	0.0400	0.2500			3/31/2016 01:49	LBB	
Fluoride	0.0582J	mg/L	0.0100	0.3000			3/31/2016 01:49	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472001**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-5**	**Date Collected:**	**3/23/2016 10:59**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	379	mg/L		25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472002**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-6**	**Date Collected:**	**3/23/2016 11:11**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/29/2016 11:26	MRP	
Calcium	64.1	mg/L	0.200	1.00	3/28/2016 11:10	KLW	3/29/2016 11:26	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 14:30	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 14:30	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0173J	mg/L	0.0100	0.0500	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Boron	0.0379J	mg/L	0.0200	0.100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Barium	0.156	mg/L	0.00200	0.0100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	ELS	4/5/2016 11:38	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/31/2016 16:13	LBB	
Sulfate	87.512	mg/L	3.00	10.0			3/31/2016 16:13	LBB	
Chloride	1.7709	mg/L	0.0400	0.2500			3/31/2016 02:27	LBB	
Fluoride	0.0791J	mg/L	0.0100	0.3000			3/31/2016 02:27	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472002**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-6**	**Date Collected:**	**3/23/2016 11:11**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	310	mg/L	25	25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472003**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**Dup-2**	**Date Collected:**	**3/23/2016 00:00**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/29/2016 13:27	MRP	
Calcium	86.4	mg/L	0.500	2.50	3/28/2016 11:10	KLW	3/29/2016 13:27	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 14:33	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 14:33	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0263J	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Boron	0.0535J	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Barium	0.103	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 11:43	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/31/2016 16:52	LBB	
Sulfate	90.617	mg/L	3.00	10.0			3/31/2016 16:52	LBB	
Chloride	2.5091	mg/L	0.0400	0.2500			3/31/2016 03:05	LBB	
Fluoride	0.0583J	mg/L	0.0100	0.3000			3/31/2016 03:05	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472003**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**Dup-2**	**Date Collected:**	**3/23/2016 00:00**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	391	mg/L		25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472004**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-7**	**Date Collected:**	**3/23/2016 13:06**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 20:03	MRP	
Calcium	45.2	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 20:03	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/28/2016 06:48	WCM	3/28/2016 14:35	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/28/2016 06:48	WCM	3/28/2016 14:35	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0192J	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Boron	0.0574J	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Cobalt	0.0172	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Nickel	0.0607	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Zinc	0.102	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Arsenic	0.00693	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Barium	0.263	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 11:48	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/31/2016 17:30	LBB	
Sulfate	90.229	mg/L	3.00	10.0			3/31/2016 17:30	LBB	
Chloride	1.1569	mg/L	0.0400	0.2500			3/31/2016 03:44	LBB	
Fluoride	0.2004J	mg/L	0.0100	0.3000			3/31/2016 03:44	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472004**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-7**	**Date Collected:**	**3/23/2016 13:06**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	253	mg/L		25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472005**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-10**	**Date Collected:**	**3/23/2016 12:31**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 20:09	MRP	
Calcium	43.9	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 20:09	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:11	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:11	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Boron	0.0354J	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Barium	0.132	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:04	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/31/2016 18:08	LBB	
Sulfate	14.6529	mg/L	0.3000	1.00			3/31/2016 18:08	LBB	
Chloride	1.3507	mg/L	0.0400	0.2500			3/31/2016 18:08	LBB	
Fluoride	0.1069J	mg/L	0.0100	0.3000			3/31/2016 18:08	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472005**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-10**	**Date Collected:**	**3/23/2016 12:31**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	182	mg/L		25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472006**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-22**	**Date Collected:**	**3/23/2016 14:51**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 20:15	MRP	
Calcium	49.9	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 20:15	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:13	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:13	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0145J	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Boron	0.0649J	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Barium	0.0938	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:09	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/31/2016 18:47	LBB	
Sulfate	9.1183	mg/L	0.3000	1.00			3/31/2016 18:47	LBB	
Chloride	1.2595	mg/L	0.0400	0.2500			3/31/2016 18:47	LBB	
Fluoride	0.0886J	mg/L	0.0100	0.3000			3/31/2016 18:47	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472006**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-22**	**Date Collected:**	**3/23/2016 14:51**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	206	mg/L		25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472007**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-9**	**Date Collected:**	**3/23/2016 14:52**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 20:21	MRP	
Calcium	36.0	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 20:21	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:16	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:16	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0152J	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Barium	0.0636	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:36	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/2/2016 14:01	LBB	
Sulfate	61.8335	mg/L	1.50	5.00			4/2/2016 14:01	LBB	
Chloride	0.9561	mg/L	0.0400	0.2500			3/31/2016 19:25	LBB	
Fluoride	0.0993J	mg/L	0.0100	0.3000			3/31/2016 19:25	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472007**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-9**	**Date Collected:**	**3/23/2016 14:52**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	204	mg/L		25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472008**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-8**	**Date Collected:**	**3/23/2016 16:12**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/29/2016 13:40	MRP	
Calcium	69.1	mg/L	0.200	1.00	3/28/2016 11:10	KLW	3/29/2016 13:40	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:19	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:19	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Boron	0.0213J	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Barium	0.0918	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:51	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/31/2016 20:04	LBB	
Sulfate	26.3455	mg/L	0.3000	1.00			3/31/2016 20:04	LBB	
Chloride	1.4936	mg/L	0.0400	0.2500			3/31/2016 20:04	LBB	
Fluoride	0.1537J	mg/L	0.0100	0.3000			3/31/2016 20:04	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472008**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-8**	**Date Collected:**	**3/23/2016 16:12**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	239	mg/L		25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472009**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-23**	**Date Collected:**	**3/23/2016 18:10**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/28/2016 20:34	MRP	
Calcium	36.4	mg/L	0.100	0.500	3/28/2016 11:10	KLW	3/28/2016 20:34	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:22	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:22	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0182J	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Barium	0.0533	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 12:57	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/31/2016 20:42	LBB	
Sulfate	6.2867	mg/L	0.3000	1.00			3/31/2016 20:42	LBB	
Chloride	1.5409	mg/L	0.0400	0.2500			3/31/2016 20:42	LBB	
Fluoride	0.1064J	mg/L	0.0100	0.3000			3/31/2016 20:42	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472009**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-23**	**Date Collected:**	**3/23/2016 18:10**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	168	mg/L		25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472010**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-20**	**Date Collected:**	**3/23/2016 18:32**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/28/2016 11:10	KLW	3/29/2016 13:46	MRP	
Calcium	56.3	mg/L	0.200	1.00	3/28/2016 11:10	KLW	3/29/2016 13:46	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/29/2016 06:31	WCM	3/29/2016 13:30	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/29/2016 06:31	WCM	3/29/2016 13:30	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0100J	mg/L	0.0100	0.0500	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Boron	<0.100	mg/L	0.0200	0.100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Barium	0.115	mg/L	0.00200	0.0100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	3/28/2016 11:25	KLW	4/5/2016 13:02	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							3/31/2016 21:20	LBB	
Sulfate	22.9683	mg/L	0.3000	1.00			3/31/2016 21:20	LBB	
Chloride	1.4238	mg/L	0.0400	0.2500			3/31/2016 21:20	LBB	
Fluoride	0.0905J	mg/L	0.0100	0.3000			3/31/2016 21:20	LBB	

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ANALYTICAL RESULTS

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID:	**102472010**	**Date Received:**	**3/24/2016 08:25**
Sample ID:	**GWC-20**	**Date Collected:**	**3/23/2016 18:32**
Sample Description	**Huffaker Rd - Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/28/2016 21:30	KLW	
TDS	208	mg/L		25			3/28/2016 21:30	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102472 CCR/State - Huffaker Rd

PARAMETER QUALIFIERS

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

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

QC Batch: HGPR/1637 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 102462001, 102462002, 102462003, 102462004, 102462005, 102462006, 102464001, 102464002, 102464003, 102468001, 102468002, 102468003, 102468004, 102468005, 102468006, 102468007, 102472001, 102472002, 102472003, 102472004

METHOD BLANK: 104273

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

LABORATORY CONTROL SAMPLE: 104269

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

LABORATORY CONTROL SAMPLE: 104274

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104275 104276 Original: 102468004

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	8.9e-006	0.002	0.00204	0.00208	102	104	80-120	1.9	20	

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

SAMPLE DUPLICATE: 104277 Original: 102468005

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

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

QC Batch: DIGM/4228 Analysis Method: EPA 6010D

QC Batch Method: EPA 3005A

Associated Lab Samples: 102472001, 102472002, 102472003, 102472004, 102472005, 102472006, 102472007, 102472008, 102472009, 102472010, 102479001, 102479002, 102479003, 102479004, 102479005, 102479006

METHOD BLANK: 104282

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

LABORATORY CONTROL SAMPLE: 104283

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

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

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

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

QC Batch: DIGM/4229 Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Associated Lab Samples: 102472001, 102472002, 102472003, 102472004, 102472005, 102472006, 102472007, 102472008, 102472009, 102472010, 102479001, 102479002, 102479003, 102479004, 102479005, 102479006

METHOD BLANK: 104292

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
TOTAL METALS				
Lithium	mg/L	<0.0500	0.0500	
Beryllium	mg/L	<0.00300	0.00300	
Boron	mg/L	<0.100	0.100	
Vanadium	mg/L	<0.0100	0.0100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Nickel	mg/L	<0.0100	0.0100	
Copper	mg/L	<0.0250	0.0250	
Zinc	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	
Silver	mg/L	<0.0100	0.0100	
Cadmium	mg/L	<0.00100	0.00100	
Antimony	mg/L	<0.00300	0.00300	
Barium	mg/L	<0.0100	0.0100	
Thallium	mg/L	<0.00100	0.00100	
Lead	mg/L	<0.00500	0.00500	

LABORATORY CONTROL SAMPLE: 104293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Lithium	mg/L	0.2	0.199	99.7	80-120	
Beryllium	mg/L	0.1	0.0983	98.3	80-120	
Boron	mg/L	0.1	0.100	100	80-120	
Vanadium	mg/L	0.1	0.106	106	80-120	
Chromium	mg/L	0.1	0.112	112	80-120	
Cobalt	mg/L	0.1	0.112	112	80-120	
Nickel	mg/L	0.1	0.110	110	80-120	
Copper	mg/L	0.1	0.116	116	80-120	
Zinc	mg/L	0.1	0.110	110	80-120	
Arsenic	mg/L	0.1	0.102	102	80-120	

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

LABORATORY CONTROL SAMPLE: 104293

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Selenium	mg/L	0.1	0.101	101	80-120	
Molybdenum	mg/L	0.1	0.0975	97.5	80-120	
Silver	mg/L	0.1	0.104	104	80-120	
Cadmium	mg/L	0.1	0.100	100	80-120	
Antimony	mg/L	0.1	0.103	103	80-120	
Barium	mg/L	0.1	0.104	104	80-120	
Thallium	mg/L	0.1	0.103	103	80-120	
Lead	mg/L	0.1	0.105	105	80-120	

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

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
TOTAL METALS											
Lithium	mg/L	0.0192	0.2	0.210	0.209	95.2	95.1	75-125	0.11	20	
Beryllium	mg/L	7.7e-005	0.1	0.0944	0.0937	94.3	93.7	75-125	0.64	20	
Boron	mg/L	0.0574	0.1	0.151	0.154	93.9	96.9	75-125	3.1	20	
Vanadium	mg/L	0	0.1	0.107	0.111	107	111	75-125	3.7	20	
Chromium	mg/L	0.00018	0.1	0.111	0.113	111	113	75-125	1.8	20	
Cobalt	mg/L	0.0172	0.1	0.124	0.127	107	110	75-125	2.8	20	
Nickel	mg/L	0.0607	0.1	0.168	0.172	107	112	75-125	4.6	20	
Copper	mg/L	0.00019	0.1	0.109	0.109	109	109	75-125	0	20	
Zinc	mg/L	0.102	0.1	0.205	0.210	104	108	75-125	3.8	20	
Arsenic	mg/L	0.00693	0.1	0.110	0.114	103	107	75-125	3.8	20	
Selenium	mg/L	0.00020	0.1	0.102	0.103	102	103	75-125	0.98	20	
Molybdenum	mg/L	0.00033	0.1	0.103	0.107	103	107	75-125	3.8	20	
Silver	mg/L	1.7e-005	0.1	0.101	0.107	101	107	75-125	5.8	20	
Cadmium	mg/L	3e-006	0.1	0.101	0.103	101	103	75-125	2	20	
Antimony	mg/L	0.00048	0.1	0.106	0.111	105	110	75-125	4.7	20	
Barium	mg/L	0.263	0.1	0.364	0.372	101	110	75-125	8.5	20	
Thallium	mg/L	0	0.1	0.106	0.108	106	108	75-125	1.9	20	
Lead	mg/L	7.1e-005	0.1	0.107	0.109	106	109	75-125	2.8	20	

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

QC Batch: GRAV/2815 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples: 102472001, 102472002, 102472003, 102472004, 102472005, 102472006, 102472007, 102472008, 102472009, 102472010, 102479001, 102479002, 102479003, 102479004, 102479005, 102479006

METHOD BLANK: 104312

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

LABORATORY CONTROL SAMPLE: 104370

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

SAMPLE DUPLICATE: 104314 Original: 102472002

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

SAMPLE DUPLICATE: 104315 Original: 102479001

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

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

QC Batch: HGPR/1638 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 102472005, 102472006, 102472007, 102472008, 102472009, 102472010, 102479001, 102479002, 102479003, 102479004, 102479005, 102479006, 102482001, 102482002, 102482003, 102482004, 102482005, 102482006, 102482007

METHOD BLANK: 104322

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

METHOD BLANK: 104328

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

LABORATORY CONTROL SAMPLE: 104323

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

LABORATORY CONTROL SAMPLE: 104324

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

LABORATORY CONTROL SAMPLE: 104329

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

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

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

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

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

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

SAMPLE DUPLICATE: 104327 Original: 102472010

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

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

QC Batch: IC/3004 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 102462001, 102462002, 102462003, 102462004, 102462005, 102462006, 102464001, 102464002, 102464003, 102468001, 102468002, 102468003, 102468004, 102468005, 102468006, 102468007, 102472001, 102472002, 102472003, 102472004, 102534001, 102534002

METHOD BLANK: 104385

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

LABORATORY CONTROL SAMPLE: 104378

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

LABORATORY CONTROL SAMPLE: 104386

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

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

QC Batch: IC/3005 Analysis Method: EPA 300

QC Batch Method: EPA 300

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

METHOD BLANK: 104470

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

METHOD BLANK: 104480

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

LABORATORY CONTROL SAMPLE: 104471

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.5367	107	90-110	
Sulfate	mg/L	5	5.0487	101	90-110	
Fluoride	mg/L	0.5	0.5156	103	90-110	

LABORATORY CONTROL SAMPLE: 104473

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

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QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

LABORATORY CONTROL SAMPLE: 104481

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

LABORATORY CONTROL SAMPLE: 104816

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104474 104475 Original: 102472010

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	1.4238	1	2.3763	2.3684	95.3	94.5	90-110	0.84	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104476 104477 Original: 102472010

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.0905	1	1.1435	1.1367	105	105	90-110	0	10	

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

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 102472 CCR/State - Huffaker Rd

QC Batch: IC/3007 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 102472007, 102526006, 102526007, 102538001, 102538002, 102558001, 102558002, 102558003, 102558004, 102558005

METHOD BLANK: 104536

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

METHOD BLANK: 104824

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

LABORATORY CONTROL SAMPLE: 104537

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

LABORATORY CONTROL SAMPLE: 104825

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	5.051	101	90-110	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
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Fax: (404) 799-2141

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102472001	GWC-5	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102472002	GWC-6	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102472003	Dup-2	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102472004	GWC-7	EPA 7470A	HGPR/1637	EPA 7470A	CVAA/1822
102472001	GWC-5	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472002	GWC-6	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472003	Dup-2	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472004	GWC-7	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472005	GWC-10	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472006	GWC-22	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472007	GWC-9	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472008	GWC-8	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472009	GWC-23	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472010	GWC-20	EPA 3005A	DIGM/4228	EPA 6010D	ICP/4952
102472001	GWC-5	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472002	GWC-6	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472003	Dup-2	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472004	GWC-7	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472005	GWC-10	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472006	GWC-22	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472007	GWC-9	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472008	GWC-8	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472009	GWC-23	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472010	GWC-20	EPA 3005A	DIGM/4229	EPA 6020B	ICPM/1041
102472001	GWC-5	SM 2540C	GRAV/2815		
102472002	GWC-6	SM 2540C	GRAV/2815		
102472003	Dup-2	SM 2540C	GRAV/2815		
102472004	GWC-7	SM 2540C	GRAV/2815		
102472005	GWC-10	SM 2540C	GRAV/2815		
102472006	GWC-22	SM 2540C	GRAV/2815		
102472007	GWC-9	SM 2540C	GRAV/2815		

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102472 CCR/State - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102472008	GWC-8	SM 2540C	GRAV/2815		
102472009	GWC-23	SM 2540C	GRAV/2815		
102472010	GWC-20	SM 2540C	GRAV/2815		
102472005	GWC-10	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102472006	GWC-22	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102472007	GWC-9	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102472008	GWC-8	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102472009	GWC-23	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102472010	GWC-20	EPA 7470A	HGPR/1638	EPA 7470A	CVAA/1823
102472001	GWC-5	EPA 300	IC/3004		
102472002	GWC-6	EPA 300	IC/3004		
102472003	Dup-2	EPA 300	IC/3004		
102472004	GWC-7	EPA 300	IC/3004		
102472001	GWC-5	EPA 300	IC/3005		
102472002	GWC-6	EPA 300	IC/3005		
102472003	Dup-2	EPA 300	IC/3005		
102472004	GWC-7	EPA 300	IC/3005		
102472005	GWC-10	EPA 300	IC/3005		
102472006	GWC-22	EPA 300	IC/3005		
102472007	GWC-9	EPA 300	IC/3005		
102472008	GWC-8	EPA 300	IC/3005		
102472009	GWC-23	EPA 300	IC/3005		
102472010	GWC-20	EPA 300	IC/3005		
102472007	GWC-9	EPA 300	IC/3007		

Georgia Power Environmental Laboratories
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Phone: (404) 799-2100
Fax: (404) 799-2141

LABORATORY CERTIFICATIONS

Workorder: 102472 CCR/State - Huffaker Rd

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 102472
Reviewed By: 3-24-16

12 Page 1 of 1

X 13 Standard Turnaround Time

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

Company: 1 Southern Company Services
Report To John Pugh
Address: 2 42 Inverness Center Parkway
Birmingham, AL 35242
Phone/Fax: 3 205.992.6781
Contact: 4 Joju Abraham
Project Location: 5 Plant Hammond - Huffaker Rd.
Account Number: 6
Special Instructions: 7 CCR + Hammond State GW

Sample Shipment Date: 8 3/23/2016
Sampled By: 9 Will Virgo (WV) Myles Rogers (MR)
Print Name
Greg Jirak (GJ) Tracy Wardell (TW)
Signature
Sample Received Date: 10
Sample Received By: 11

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

PRESERVATIVE 21: N | N | I | N

ANALYSIS REQUESTED 22

Sample Type Key: 23
G-Grab C-Composite
O-Other

Matrix Key: 24
O-Oil SW-Surface Water
S-Solid GW-Ground Water
SL-Sludge WW-Waste Water
W-Wipe DW-Drinking Water
LQ-Liquid OW-Other Water

Preservative Key: 25
H-Hydrochloric Acid
N-Nitric Acid
S-Sulfuric Acid
SH-Sodium Hydroxide
P-Phosphoric Acid
ST-Sodium Thiosulfate
I-Ice
U-Unpreserved
O-Other (Specify)

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 16 Date	Collection 16 Time	Sample Description 17	18 Sample Type	19 Matrix	20 No. of Containers	Appendix III/IV EPA 6020 & EPA 7470	Hammond Huffaker State GW (Attached) EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300	TDS SM 2540C	Radium 224+228 Ga Tech				LAB USE ONLY 26 Comments
102472001	GWC-5	3/23/16	10:59	Huffaker Rd. - Groundwater	G	GW	3	X	X	X	X					
2	GWC-6	3/23/16	11:11	Huffaker Rd - Groundwater	G	GW	3	X	X	X	X					
3	~~DUP-02~~ DUP-2	3/23/16	-	Huffaker Rd. - Groundwater	G	GW	3	X	X	X	X					

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: 28 GJ Seal #20160323-1	Date/Time 3/23/2016 20:05	
Received by: 29	Date/Time	
Relinquished by:	Date/Time	
Received by:	Date/Time 3/24/16 @ 8:25	

LAB USE ONLY: Sample Receipt Information 30
3.2°C (GPEL-IR-3P), with ice, cooler in good condition, seal, PHL2
Hand.

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

2

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 102472
Reviewed By: [signature] 3-24-16

12 Page ____ of ____

13 [X] Standard Turnaround Time
[ ] # of Business Days (Rush)
(Must be cleared through Env. Lab. prior to shipment)

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

Sample Shipment Date: 8 3/23/2016
Sampled By: 9 Will Virgo (WV) Myles Rogers (MR)
Print Name
Tracy Wardell (TW) Greg Jirak (GJ)
Signature
Sample Received Date: 10
Sample Received By: 11
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Sample Type Key: 23 G-Grab, C-Composite, O-Other
Matrix Key: 24 O-Oil, S-Solid, SL-Sludge, W-Wipe, LQ-Liquid, SW-Surface Water, GW-Ground Water, WW-Waste Water, DW-Drinking Water, OW-Other Water
Preservative Key: 25 H-Hydrochloric Acid, N-Nitric Acid, S-Sulfuric Acid, SH-Sodium Hydroxide, P-Phosphoric Acid, ST-Sodium Thiosulfate, I-Ice, U-Unpreserved, O-Other (Specify)

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 16 Date	Time	Sample Description 17	Sample Type 18	Matrix 19	No. of Containers 20	Metals App III + IV EPA 6020 + EPA 7470 (Preservative: N)	Hammond Huffaker State GW (attached) EPA 6020 + EPA 7470 (Preservative: N)	Cl, F, SO4 EPA 300 TDS SM2540C (Preservative: I)	Radium 226 + 228 Ga Tech (Preservative: N)				LAB USE ONLY 26 Comments
102472004	GWC-7	3/23/16	13:06	Huffaker Rd. - Groundwater	G	GW	3	X	X	X	X				
5	GWC-10	3/23/16	12:31	Huffaker Rd - Groundwater	G	GW	3	X	X	X	X				
6	GWC-22	3/23/16	14:51	Huffaker Rd. Groundwater	G	GW	3	X	X	X	X				

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: 28 [signature] Seal #20160323-2 Date/Time 3/23/2016 20:05
Received by: 29 Date/Time
Relinquished by: Date/Time
Received by: [signature] Date/Time 3/24/16 @ 8:25

LAB USE ONLY: Sample Receipt Information 30
3.2C (GPE-L-IR-3P) w/ ice, cooler in good Condition, Seal, PH<2 Hand.

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

3

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 102472
Reviewed By: 3-24-16

[12] Page _____ of _____

[X] [13] Standard Turnaround Time

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

Company: [1] Southern Company Services
Report To John Pugh
Address: [2] 42 Inverness Center Parkway
Birmingham, AL 35242

Phone/Fax: [3] 205.992.6781
Contact: [4] Joju Abraham
Project Location: [5] Plant Hammond-Huffaker
Account Number: [6]
Special Instructions: [7] CCR + Hammond State GW

Sample Shipment Date: [8] 3/23/2016
Sampled By: [9] Will Virgo (WV) Myles Rogers (MR) Print Name
Greg Jirak (GJ) Tracy Wardell (TW) Signature
Sample Received Date: [10]
Sample Received By: [11]

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

PRESERVATIVE [21]

HNO3 N	HNO3 N	Ice I	HNO3 N			

ANALYSIS REQUESTED [22]

[18] Sample Type	[19] Matrix	[20] No. of Containers	Metals App. III + IV	EPA 6020 + EPA 7470	Hammond Huffaker State GW (Attached)	EPA 6020 + EPA 7470	Cl, F, SO4 EPA 300	TDS SM 2540C	Radium 226 + 228 Ga Tech				
G	GW	3	X	X	X				X				
G	GW	3	X	X	X				X				
G	GW	3	X	X	X				X				
G	GW	3	X	X	X				X				

Sample Type Key: [23]
G-Grab C-Composite
O-Other

Matrix Key: [24]
O-Oil SW-Surface Water
S-Solid GW-Ground Water
SL-Sludge WW-Waste Water
W-Wipe DW-Drinking Water
LQ-Liquid OW-Other Water

Preservative Key: [25]
H-Hydrochloric Acid
N-Nitric Acid
S-Sulfuric Acid
SH-Sodium Hydroxide
P-Phosphoric Acid
ST-Sodium Thiosulfate
I-Ice
U-Unpreserved
O-Other (Specify)

LAB USE ONLY [14] LAB ID	Sample Number [15]	Collection [16] Date	Collection [16] Time	Sample Description [17]	LAB USE ONLY [26] Comments
102472007	GWC-9	3/23/16	14:52	Huffaker Rd. - GW	
8	GWC-8	3/23/16	16:12	Huffaker Rd - GW	
9	GWC-23	3/23/16	18:10	Huffaker Rd - GW	
10	GWC-20	3/23/16	18:32	Huffaker Rd - GW	

FOR CHAIN OF CUSTODY USE ONLY [27]

Relinquished by: [28] Seal #20160323-3 Date/Time 3/23/2016 20:05
Received by: [29] Date/Time
Relinquished by: Date/Time
Received by: Date/Time 3/24/16 @8:25

LAB USE ONLY: Sample Receipt Information [30]
3.2°C (GPEL-IR-3P), with ice, cooler in good condition, seal, PH<2 Hach

Page 41 of 42

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client: Hammond
Workorder No.: 102472
Carrier: HAND

# of Samples: 10
Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.2
COC is present	True	Mark throw present on COC with no initial and date.
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	Sample GWC-8 the label on the inorganic analysis was torn.
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:

Completed By: Jassim, Ayssar

Date: 03/29/2016

ENVIRONMENTAL LABORATORY

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

April 29, 2016

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

RE: Workorder: 102484 CCR/State - Huffaker Rd

Dear Joju Abraham:

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

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

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

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

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

L. Biddy

lbbiddy@southernco.com

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

Respectfully submitted,

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

SAMPLE SUMMARY

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
102484001	FB-02	N/A	Water	3/24/2016 12:15	3/24/2016 15:30
102484002	GWC-19	N/A	Water	3/24/2016 11:06	3/24/2016 15:30
102484003	GWC-18	N/A	Water	3/24/2016 11:08	3/24/2016 15:30
102484004	GWC-21	N/A	Water	3/24/2016 11:40	3/24/2016 15:30
102484005	FERB-01	N/A	Water	3/24/2016 13:00	3/24/2016 15:30
102484006	FERB-02	N/A	Water	3/24/2016 13:30	3/24/2016 15:30
102484007	FB-01	N/A	Water	3/24/2016 11:30	3/24/2016 15:30

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484001**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**FB-02**	**Date Collected:**	**3/24/2016 12:15**
Sample Description	**Field Blank Huffaker Rd.**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 17:34	MRP	
Calcium	<0.500	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 17:34	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:21	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:21	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 16:41	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/1/2016 18:11	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/1/2016 18:11	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/1/2016 18:11	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/1/2016 18:11	LBB	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484001**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**FB-02**	**Date Collected:**	**3/24/2016 12:15**
Sample Description	**Field Blank Huffaker Rd.**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	<25	mg/L		25			3/29/2016 22:01	KLW	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484002**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**GWC-19**	**Date Collected:**	**3/24/2016 11:06**
Sample Description	**Huffaker Rd Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 17:40	MRP	
Calcium	43.9	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 17:40	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:23	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:23	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0181J	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Boron	0.173	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Barium	0.152	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 16:46	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/1/2016 18:49	LBB	
Sulfate	16.8473	mg/L	0.3000	1.00			4/1/2016 18:49	LBB	
Chloride	1.6497	mg/L	0.0400	0.2500			4/1/2016 18:49	LBB	
Fluoride	0.1652J	mg/L	0.0100	0.3000			4/1/2016 18:49	LBB	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484002**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**GWC-19**	**Date Collected:**	**3/24/2016 11:06**
Sample Description	**Huffaker Rd Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	232	mg/L		25			3/29/2016 22:01	KLW	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484003**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**GWC-18**	**Date Collected:**	**3/24/2016 11:08**
Sample Description	**Huffaker Rd Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 17:46	MRP	
Calcium	40.7	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 17:46	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:26	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:26	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0141J	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Boron	0.122	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Barium	0.0818	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 16:52	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/1/2016 19:28	LBB	
Sulfate	10.1818	mg/L	0.3000	1.00			4/1/2016 19:28	LBB	
Chloride	1.1313	mg/L	0.0400	0.2500			4/1/2016 19:28	LBB	
Fluoride	0.1459J	mg/L	0.0100	0.3000			4/1/2016 19:28	LBB	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484003**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**GWC-18**	**Date Collected:**	**3/24/2016 11:08**
Sample Description	**Huffaker Rd Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	205	mg/L		25			3/29/2016 22:01	KLW	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484004**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**GWC-21**	**Date Collected:**	**3/24/2016 11:40**
Sample Description	**Huffaker Rd Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 17:52	MRP	
Calcium	31.4	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 17:52	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:29	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:29	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Boron	0.0232J	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Nickel	0.00317J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Zinc	0.00393J	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Barium	0.0460	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 17:08	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/1/2016 20:06	LBB	
Sulfate	24.8075	mg/L	0.3000	1.00			4/1/2016 20:06	LBB	
Chloride	2.461	mg/L	0.0400	0.2500			4/1/2016 20:06	LBB	
Fluoride	0.0445J	mg/L	0.0100	0.3000			4/1/2016 20:06	LBB	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484004**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**GWC-21**	**Date Collected:**	**3/24/2016 11:40**
Sample Description	**Huffaker Rd Groundwater**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	110	mg/L		25			3/29/2016 22:01	KLW	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484005**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**FERB-01**	**Date Collected:**	**3/24/2016 13:00**
Sample Description	**Field Equipment Rinse Blank**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 17:58	MRP	
Calcium	<0.500	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 17:58	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:31	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:31	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 17:14	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/1/2016 20:45	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/1/2016 20:45	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/1/2016 20:45	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/1/2016 20:45	LBB	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484005**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**FERB-01**	**Date Collected:**	**3/24/2016 13:00**
Sample Description	**Field Equipment Rinse Blank**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	<25	mg/L		25			3/29/2016 22:01	KLW	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484006**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**FERB-02**	**Date Collected:**	**3/24/2016 13:30**
Sample Description	**Field Equipment Rinse Blank**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 18:04	MRP	
Calcium	<0.500	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 18:04	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:34	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:34	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 17:19	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/1/2016 21:23	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/1/2016 21:23	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/1/2016 21:23	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/1/2016 21:23	LBB	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484006**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**FERB-02**	**Date Collected:**	**3/24/2016 13:30**
Sample Description	**Field Equipment Rinse Blank**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	<25	mg/L		25			3/29/2016 22:01	KLW	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484007**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**FB-01**	**Date Collected:**	**3/24/2016 11:30**
Sample Description	**Field Blank Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					3/30/2016 10:00	KLW	3/31/2016 18:10	MRP	
Calcium	<0.500	mg/L	0.100	0.500	3/30/2016 10:00	KLW	3/31/2016 18:10	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					3/30/2016 07:07	WCM	3/30/2016 13:42	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	3/30/2016 07:07	WCM	3/30/2016 13:42	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Boron	<0.100	mg/L	0.0200	0.100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Vanadium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Nickel	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Copper	<0.0250	mg/L	0.00500	0.0250	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Zinc	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Silver	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	4/11/2016 11:05	KLW	4/11/2016 17:25	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							4/1/2016 22:01	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			4/1/2016 22:01	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			4/1/2016 22:01	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			4/1/2016 22:01	LBB	

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ANALYTICAL RESULTS

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID:	**102484007**	**Date Received:**	**3/24/2016 15:30**
Sample ID:	**FB-01**	**Date Collected:**	**3/24/2016 11:30**
Sample Description	**Field Blank Huffaker Rd**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							3/29/2016 22:01	KLW	
TDS	<25	mg/L		25			3/29/2016 22:01	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 102484 CCR/State - Huffaker Rd

PARAMETER QUALIFIERS

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

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QUALITY CONTROL DATA

Workorder: 102484 CCR/State - Huffaker Rd

QC Batch: GRAV/2817 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples: 102482001, 102482002, 102482003, 102482004, 102482005, 102482006, 102482007, 102484001, 102484002, 102484003, 102484004, 102484005, 102484006, 102484007

METHOD BLANK: 104364

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

LABORATORY CONTROL SAMPLE: 104365

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

SAMPLE DUPLICATE: 104366 Original: 102482001

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

SAMPLE DUPLICATE: 104367 Original: 102484006

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

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QUALITY CONTROL DATA

Workorder: 102484 CCR/State - Huffaker Rd

QC Batch: HGPR/1639 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 102484001 102484002 102484003 102484004 102484005 102484006 102484007

METHOD BLANK: 104397

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

METHOD BLANK: 104404

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

LABORATORY CONTROL SAMPLE: 104398

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

LABORATORY CONTROL SAMPLE: 104399

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

LABORATORY CONTROL SAMPLE: 104405

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

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QUALITY CONTROL DATA

Workorder: 102484 CCR/State - Huffaker Rd

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

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

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

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

SAMPLE DUPLICATE: 104403 Original: 102484007

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

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QUALITY CONTROL DATA

Workorder: 102484 CCR/State - Huffaker Rd

QC Batch: DIGM/4234 Analysis Method: EPA 6010D

QC Batch Method: EPA 3005A

Associated Lab Samples: 102482001, 102482002, 102482003, 102482004, 102482005, 102482006, 102482007, 102484001, 102484002, 102484003, 102484004, 102484005, 102484006, 102484007

METHOD BLANK: 104409

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

LABORATORY CONTROL SAMPLE: 104410

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

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

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

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QUALITY CONTROL DATA

Workorder: 102484 CCR/State - Huffaker Rd

QC Batch: IC/3005 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples:	102472001	102472002	102472003	102472004	102472005	102472006
	102472007	102472008	102472009	102472010	102479001	102479002
	102479003	102479004	102479005	102479006	102482001	102482002
	102482003	102482004	102482005	102482006	102482007	102484001
Associated Lab Samples:	102484003	102484004	102484005	102484006	102484007	

METHOD BLANK: 104494

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

METHOD BLANK: 104506

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

LABORATORY CONTROL SAMPLE: 104473

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

LABORATORY CONTROL SAMPLE: 104495

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

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QUALITY CONTROL DATA

Workorder: 102484 CCR/State - Huffaker Rd

LABORATORY CONTROL SAMPLE: 104507

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

LABORATORY CONTROL SAMPLE: 104816

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

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

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104498 Original: 102484007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0042	1	1.0616		106	0	90-110	0	0	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104500 Original: 102484007

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104504 Original: 102484007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.4243		104	0	90-110	0	0	

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QUALITY CONTROL DATA

Workorder: 102484 CCR/State - Huffaker Rd

QC Batch: DIGM/4251 Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Associated Lab Samples: 102484001 102484002 102484003 102484004 102484005 102484006 102484007

METHOD BLANK: 104835

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	
Vanadium	mg/L	<0.0100	0.0100	
Chromium	mg/L	<0.0100	0.0100	
Cobalt	mg/L	<0.0100	0.0100	
Nickel	mg/L	<0.0100	0.0100	
Copper	mg/L	<0.0250	0.0250	
Zinc	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	
Silver	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: 104836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Lithium	mg/L	0.2	0.215	107	80-120	
Beryllium	mg/L	0.1	0.102	102	80-120	
Boron	mg/L	0.1	0.102	102	80-120	
Vanadium	mg/L	0.1	0.103	103	80-120	
Chromium	mg/L	0.1	0.108	108	80-120	
Cobalt	mg/L	0.1	0.107	107	80-120	
Nickel	mg/L	0.1	0.106	106	80-120	
Copper	mg/L	0.1	0.110	110	80-120	
Zinc	mg/L	0.1	0.107	107	80-120	
Arsenic	mg/L	0.1	0.104	104	80-120	
Selenium	mg/L	0.1	0.103	103	80-120	

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QUALITY CONTROL DATA

Workorder: 102484 CCR/State - Huffaker Rd

LABORATORY CONTROL SAMPLE: 104836

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Molybdenum	mg/L	0.1	0.101	101	80-120	
Silver	mg/L	0.1	0.106	106	80-120	
Cadmium	mg/L	0.1	0.103	103	80-120	
Antimony	mg/L	0.1	0.104	104	80-120	
Barium	mg/L	0.1	0.108	108	80-120	
Thallium	mg/L	0.1	0.104	104	80-120	
Lead	mg/L	0.1	0.106	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104837 104838 Original: 102484003

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	0.0141	0.2	0.202	0.206	94.1	96	75-125	2	20	
Beryllium	mg/L	6e-006	0.1	0.0976	0.0986	97.6	98.6	75-125	1	20	
Boron	mg/L	0.122	0.1	0.217	0.222	95.1	100	75-125	5	20	
Vanadium	mg/L	0.00035	0.1	0.106	0.104	106	104	75-125	1.9	20	
Chromium	mg/L	0.00038	0.1	0.108	0.108	107	108	75-125	0.93	20	
Cobalt	mg/L	0.00015	0.1	0.106	0.104	106	104	75-125	1.9	20	
Nickel	mg/L	0.00071	0.1	0.103	0.101	102	101	75-125	0.99	20	
Copper	mg/L	0.00022	0.1	0.105	0.104	105	104	75-125	0.96	20	
Zinc	mg/L	0.00137	0.1	0.108	0.106	107	104	75-125	2.8	20	
Arsenic	mg/L	0.00056	0.1	0.107	0.105	107	105	75-125	1.9	20	
Selenium	mg/L	4.2e-005	0.1	0.106	0.104	106	104	75-125	1.9	20	
Molybdenum	mg/L	0.00136	0.1	0.110	0.108	109	107	75-125	1.9	20	
Silver	mg/L	2e-006	0.1	0.105	0.107	105	107	75-125	1.9	20	
Cadmium	mg/L	9e-006	0.1	0.105	0.102	105	102	75-125	2.9	20	
Antimony	mg/L	4.8e-005	0.1	0.108	0.106	108	106	75-125	1.9	20	
Barium	mg/L	0.0818	0.1	0.196	0.189	114	107	75-125	6.3	20	
Thallium	mg/L	0	0.1	0.108	0.105	108	105	75-125	2.8	20	
Lead	mg/L	8.3e-005	0.1	0.106	0.104	106	104	75-125	1.9	20	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102484001	FB-02	SM 2540C	GRAV/2817		
102484002	GWC-19	SM 2540C	GRAV/2817		
102484003	GWC-18	SM 2540C	GRAV/2817		
102484004	GWC-21	SM 2540C	GRAV/2817		
102484005	FERB-01	SM 2540C	GRAV/2817		
102484006	FERB-02	SM 2540C	GRAV/2817		
102484007	FB-01	SM 2540C	GRAV/2817		
102484001	FB-02	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102484002	GWC-19	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102484003	GWC-18	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102484004	GWC-21	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102484005	FERB-01	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102484006	FERB-02	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102484007	FB-01	EPA 7470A	HGPR/1639	EPA 7470A	CVAA/1824
102484001	FB-02	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102484002	GWC-19	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102484003	GWC-18	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102484004	GWC-21	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102484005	FERB-01	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102484006	FERB-02	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102484007	FB-01	EPA 3005A	DIGM/4234	EPA 6010D	ICP/4958
102484001	FB-02	EPA 300	IC/3005		
102484002	GWC-19	EPA 300	IC/3005		
102484003	GWC-18	EPA 300	IC/3005		
102484004	GWC-21	EPA 300	IC/3005		
102484005	FERB-01	EPA 300	IC/3005		
102484006	FERB-02	EPA 300	IC/3005		
102484007	FB-01	EPA 300	IC/3005		
102484001	FB-02	EPA 3005A	DIGM/4251	EPA 6020B	ICPM/1047

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 102484 CCR/State - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
102484002	GWC-19	EPA 3005A	DIGM/4251	EPA 6020B	ICPM/1047
102484003	GWC-18	EPA 3005A	DIGM/4251	EPA 6020B	ICPM/1047
102484004	GWC-21	EPA 3005A	DIGM/4251	EPA 6020B	ICPM/1047
102484005	FERB-01	EPA 3005A	DIGM/4251	EPA 6020B	ICPM/1047
102484006	FERB-02	EPA 3005A	DIGM/4251	EPA 6020B	ICPM/1047
102484007	FB-01	EPA 3005A	DIGM/4251	EPA 6020B	ICPM/1047

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LABORATORY CERTIFICATIONS

Workorder: 102484 CCR/State - Huffaker Rd

Certification Program	Certification Number
NELAC	E57554

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June 17, 2016

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

RE: Workorder: 103461 CCR - Huffaker Rd

Dear Joju Abraham:

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

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

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

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

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

L. Biddy

lbbiddy@southernco.com

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

Respectfully submitted,

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

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SAMPLE SUMMARY

Workorder: 103461 CCR - Huffaker Rd

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103461001	GWA-4	N/A	Water	5/17/2016 11:35	5/18/2016 08:30
103461002	GWC-5	N/A	Water	5/17/2016 15:10	5/18/2016 08:30
103461003	GWA-11	N/A	Water	5/17/2016 12:54	5/18/2016 08:30
103461004	GWC-10	N/A	Water	5/17/2016 15:28	5/18/2016 08:30
103461005	GWA-2	N/A	Water	5/17/2016 10:15	5/18/2016 08:30
103461006	GWA-3	N/A	Water	5/17/2016 13:55	5/18/2016 08:30
103461007	GWC-6	N/A	Water	5/17/2016 17:40	5/18/2016 08:30
103461008	GWA-1	N/A	Water	5/17/2016 10:27	5/18/2016 08:30
103461009	Dup-1	N/A	Water	5/17/2016 00:00	5/18/2016 08:30

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461001**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-4**	**Date Collected:**	**5/17/2016 11:35**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/19/2016 10:40	KLW	5/24/2016 10:28	HAM	
Calcium	99.2	mg/L	0.500	2.50	5/19/2016 10:40	KLW	5/24/2016 10:28	HAM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/24/2016 12:35	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0193J	mg/L	0.0100	0.0500	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Boron	0.0838J	mg/L	0.0200	0.100	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Barium	0.0351	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:21	MRP	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/27/2016 12:56	LBB	
Sulfate	213	mg/L	3.00	10.0			5/27/2016 12:56	LBB	
Chloride	6.74	mg/L	0.2000	1.25			5/27/2016 09:11	LBB	
Fluoride	0.1385J	mg/L	0.0100	0.3000			5/25/2016 19:22	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461001**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-4**	**Date Collected:**	**5/17/2016 11:35**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	533	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461002**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWC-5**	**Date Collected:**	**5/17/2016 15:10**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/19/2016 10:40	KLW	5/24/2016 10:34	HAM	
Calcium	74.6	mg/L	0.200	1.00	5/19/2016 10:40	KLW	5/24/2016 10:34	HAM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/24/2016 12:43	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0299J	mg/L	0.0100	0.0500	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Boron	0.0565J	mg/L	0.0200	0.100	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 19:50	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:50	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:50	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Barium	0.104	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:26	MRP	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/27/2016 09:41	LBB	
Sulfate	76.2	mg/L	1.50	5.00			5/27/2016 09:41	LBB	
Chloride	2.47	mg/L	0.0400	0.2500			5/25/2016 19:52	LBB	
Fluoride	0.0571J	mg/L	0.0100	0.3000			5/25/2016 19:52	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461002**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWC-5**	**Date Collected:**	**5/17/2016 15:10**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	349	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461003**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-11**	**Date Collected:**	**5/17/2016 12:54**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/19/2016 10:40	KLW	5/23/2016 15:30	HAM	
Calcium	21.5	mg/L	0.100	0.500	5/19/2016 10:40	KLW	5/23/2016 15:30	HAM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/24/2016 12:48	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0113J	mg/L	0.0100	0.0500	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Boron	0.0358J	mg/L	0.0200	0.100	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Barium	0.0323	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:30	MRP	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/25/2016 20:22	LBB	
Sulfate	11.4	mg/L	0.3000	1.00			5/25/2016 20:22	LBB	
Chloride	1.29	mg/L	0.0400	0.2500			5/25/2016 20:22	LBB	
Fluoride	0.0706J	mg/L	0.0100	0.3000			5/25/2016 20:22	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461003**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-11**	**Date Collected:**	**5/17/2016 12:54**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	121	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461004**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWC-10**	**Date Collected:**	**5/17/2016 15:28**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/19/2016 10:40	KLW	5/23/2016 15:36	HAM	
Calcium	40.1	mg/L	0.100	0.500	5/19/2016 10:40	KLW	5/23/2016 15:36	HAM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/24/2016 12:51	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0100J	mg/L	0.0100	0.0500	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Boron	0.0349J	mg/L	0.0200	0.100	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Chromium	0.00424J	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Barium	0.122	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:35	MRP	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/25/2016 20:52	LBB	
Sulfate	13.3	mg/L	0.3000	1.00			5/25/2016 20:52	LBB	
Chloride	1.28	mg/L	0.0400	0.2500			5/25/2016 20:52	LBB	
Fluoride	0.0991J	mg/L	0.0100	0.3000			5/25/2016 20:52	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461004**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWC-10**	**Date Collected:**	**5/17/2016 15:28**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	178	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461005**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-2**	**Date Collected:**	**5/17/2016 10:15**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/19/2016 10:40	KLW	5/23/2016 15:42	HAM	
Calcium	45.5	mg/L	0.100	0.500	5/19/2016 10:40	KLW	5/23/2016 15:42	HAM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/24/2016 12:54	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0126J	mg/L	0.0100	0.0500	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Boron	0.0844J	mg/L	0.0200	0.100	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Barium	0.178	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:49	MRP	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/25/2016 21:22	LBB	
Sulfate	15.3	mg/L	0.3000	1.00			5/25/2016 21:22	LBB	
Chloride	2.10	mg/L	0.0400	0.2500			5/25/2016 21:22	LBB	
Fluoride	0.1091J	mg/L	0.0100	0.3000			5/25/2016 21:22	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461005**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-2**	**Date Collected:**	**5/17/2016 10:15**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	197	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461006**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-3**	**Date Collected:**	**5/17/2016 13:55**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/19/2016 10:40	KLW	5/24/2016 10:40	HAM	
Calcium	75.8	mg/L	0.200	1.00	5/19/2016 10:40	KLW	5/24/2016 10:40	HAM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/24/2016 12:56	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0188J	mg/L	0.0100	0.0500	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Boron	0.132	mg/L	0.0200	0.100	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Arsenic	0.00129J	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Barium	0.193	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:54	MRP	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/27/2016 10:11	LBB	
Sulfate	106	mg/L	3.00	10.0			5/27/2016 13:26	LBB	
Chloride	3.81	mg/L	0.0800	0.5000			5/27/2016 10:11	LBB	
Fluoride	0.1293J	mg/L	0.0100	0.3000			5/25/2016 21:52	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461006**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-3**	**Date Collected:**	**5/17/2016 13:55**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	430	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461007**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWC-6**	**Date Collected:**	**5/17/2016 17:40**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/19/2016 10:40	KLW	5/24/2016 10:46	HAM	
Calcium	62.8	mg/L	0.200	1.00	5/19/2016 10:40	KLW	5/24/2016 10:46	HAM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/24/2016 12:59	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0193J	mg/L	0.0100	0.0500	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Boron	0.0395J	mg/L	0.0200	0.100	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Barium	0.168	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 18:58	MRP	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/27/2016 10:57	LBB	
Sulfate	101	mg/L	3.00	10.0			5/27/2016 10:57	LBB	
Chloride	1.75	mg/L	0.0400	0.2500			5/26/2016 00:22	LBB	
Fluoride	0.0712J	mg/L	0.0100	0.3000			5/26/2016 00:22	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461007**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWC-6**	**Date Collected:**	**5/17/2016 17:40**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	280	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461008**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-1**	**Date Collected:**	**5/17/2016 10:27**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/19/2016 10:40	KLW	5/23/2016 16:00	HAM	
Calcium	15.6	mg/L	0.100	0.500	5/19/2016 10:40	KLW	5/23/2016 16:00	HAM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/24/2016 13:02	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0109J	mg/L	0.0100	0.0500	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Boron	<0.100	mg/L	0.0200	0.100	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Barium	0.0387	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 19:22	MRP	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/26/2016 00:52	LBB	
Sulfate	4.43	mg/L	0.3000	1.00			5/26/2016 00:52	LBB	
Chloride	1.14	mg/L	0.0400	0.2500			5/26/2016 00:52	LBB	
Fluoride	0.1049J	mg/L	0.0100	0.3000			5/26/2016 00:52	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461008**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**GWA-1**	**Date Collected:**	**5/17/2016 10:27**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	67	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461009**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**Dup-1**	**Date Collected:**	**5/17/2016 00:00**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					5/19/2016 10:40	KLW	5/23/2016 16:42	HAM	
Calcium	15.8	mg/L	0.100	0.500	5/19/2016 10:40	KLW	5/23/2016 16:42	HAM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
TOTAL METALS					5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/24/2016 13:04	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0113J	mg/L	0.0100	0.0500	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Boron	<0.100	mg/L	0.0200	0.100	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Barium	0.0388	mg/L	0.00200	0.0100	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Lead	<0.00500	mg/L	0.00100	0.00500	5/19/2016 10:40	KLW	5/23/2016 19:27	MRP	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/26/2016 01:21	LBB	
Sulfate	4.41	mg/L	0.3000	1.00			5/26/2016 01:21	LBB	
Chloride	1.14	mg/L	0.0400	0.2500			5/26/2016 01:21	LBB	
Fluoride	0.1055J	mg/L	0.0100	0.3000			5/26/2016 01:21	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103461 CCR - Huffaker Rd

Lab ID:	**103461009**	**Date Received:**	**5/18/2016 08:30**
Sample ID:	**Dup-1**	**Date Collected:**	**5/17/2016 00:00**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
TDS	75	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 103461 CCR - Huffaker Rd

PARAMETER QUALIFIERS

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

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QUALITY CONTROL DATA

Workorder: 103461 CCR - Huffaker Rd

QC Batch: DIGM/4316 Analysis Method: EPA 6010D

QC Batch Method: EPA 3005A

Associated Lab Samples: 103461001, 103461002, 103461003, 103461004, 103461005, 103461006, 103461007, 103461008, 103461009, 103463001, 103463002, 103463003, 103463004

METHOD BLANK: 106135

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

LABORATORY CONTROL SAMPLE: 106136

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
INORGANICS						
Calcium	mg/L	5	5.24	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106137 106138 Original: 103461008

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
INORGANICS											
Calcium	mg/L	15.6	5	20.5	20.9	97.4	105	75-125	7.5	20	

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QUALITY CONTROL DATA

Workorder: 103461 CCR - Huffaker Rd

QC Batch: DIGM/4317 Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Associated Lab Samples: 103461001, 103461002, 103461003, 103461004, 103461005, 103461006, 103461007, 103461008, 103461009, 103463001, 103463002, 103463003, 103463004

METHOD BLANK: 106139

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: 106140

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Lithium	mg/L	0.2	0.214	107	80-120	
Beryllium	mg/L	0.1	0.105	105	80-120	
Boron	mg/L	0.1	0.105	105	80-120	
Chromium	mg/L	0.1	0.111	111	80-120	
Cobalt	mg/L	0.1	0.107	107	80-120	
Arsenic	mg/L	0.1	0.106	106	80-120	
Selenium	mg/L	0.1	0.107	107	80-120	
Molybdenum	mg/L	0.1	0.106	106	80-120	
Cadmium	mg/L	0.1	0.105	105	80-120	
Antimony	mg/L	0.1	0.106	106	80-120	
Barium	mg/L	0.1	0.112	112	80-120	
Thallium	mg/L	0.1	0.0967	96.7	80-120	
Lead	mg/L	0.1	0.106	106	80-120	

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Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103461 CCR - Huffaker Rd

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106141 106142 Original: 103461004

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	0.01	0.2	0.216	0.216	103	103	75-125	0	20	
Beryllium	mg/L	6e-006	0.1	0.103	0.102	103	102	75-125	0.98	20	
Boron	mg/L	0.0349	0.1	0.142	0.140	107	105	75-125	1.9	20	
Chromium	mg/L	0.00424	0.1	0.109	0.109	105	105	75-125	0	20	
Cobalt	mg/L	5.2e-005	0.1	0.105	0.105	105	105	75-125	0	20	
Arsenic	mg/L	0.00021	0.1	0.107	0.107	107	107	75-125	0	20	
Selenium	mg/L	0.00020	0.1	0.105	0.103	105	103	75-125	1.9	20	
Molybdenum	mg/L	0.00015	0.1	0.110	0.110	110	109	75-125	0.91	20	
Cadmium	mg/L	0	0.1	0.106	0.107	106	107	75-125	0.94	20	
Antimony	mg/L	0.00015	0.1	0.109	0.109	109	108	75-125	0.92	20	
Barium	mg/L	0.122	0.1	0.232	0.229	110	107	75-125	2.8	20	
Thallium	mg/L	0	0.1	0.0973	0.0972	97.3	97.2	75-125	0.1	20	
Lead	mg/L	6e-005	0.1	0.105	0.105	105	105	75-125	0	20	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103461 CCR - Huffaker Rd

QC Batch: GRAV/2873 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples: 103461001, 103461002, 103461003, 103461004, 103461005, 103461006, 103461007, 103461008, 103461009, 103463001, 103463002, 103463003, 103463004, 103472001, 103472002, 103472003, 103472004, 103477001, 103477002, 103477003

METHOD BLANK: 106159

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

LABORATORY CONTROL SAMPLE: 106162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	238	98.8	90-110	

SAMPLE DUPLICATE: 106160 Original: 103461001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	533	553	3.7	20	

SAMPLE DUPLICATE: 106161 Original: 103463001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	<25	<25	0	20	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103461 CCR - Huffaker Rd

QC Batch: HGPR/1658 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 103399001, 103399002, 103399003, 103399004, 103399005, 103399006, 103461001, 103461002, 103461003, 103461004, 103461005, 103461006, 103461007, 103461008, 103461009

METHOD BLANK: 106251

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

LABORATORY CONTROL SAMPLE: 106247

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

LABORATORY CONTROL SAMPLE: 106252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00193	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106248 106249 Original: 103399001

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	1.43e-00	0.002	0.00211	0.00203	105	101	80-120	3.9	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106253 106254 Original: 103461001

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	1.84e-00	0.002	0.00206	0.00203	102	101	80-120	0.99	20	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103461 CCR - Huffaker Rd

SAMPLE DUPLICATE: 106250 Original: 103399002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	15	20	

SAMPLE DUPLICATE: 106255 Original: 103461002

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
TOTAL METALS						
Mercury	mg/L	<0.000500	<0.000500	11	20	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103461 CCR - Huffaker Rd

QC Batch: IC/3033 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 103461001, 103461002, 103461003, 103461004, 103461005, 103461006, 103461007, 103461008, 103461009, 103463001, 103463002, 103463003, 103463004, 103483001, 103483002, 103483003

METHOD BLANK: 106312

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 106322

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106313

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4692	93.8		
Sulfate	mg/L	5	4.84	96.7		
Fluoride	mg/L	0.5	0.5174	103		

LABORATORY CONTROL SAMPLE: 106315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.6	103	90-110	
Fluoride	mg/L	6.83	6.82	99.9	90-110	

LABORATORY CONTROL SAMPLE: 106323

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4684	93.7		
Sulfate	mg/L	5	4.84	96.9		

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103461 CCR - Huffaker Rd

LABORATORY CONTROL SAMPLE: 106323

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.5	0.5169	103		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106320 106321 Original: 103440004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.0	9.95	100	99.5	90-110	0.5	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106324 106325 Original: 103483003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0	1	0.9525	0.9576	95.3	95.8	90-110	0.52	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106328 106329 Original: 103483003

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	9.85	9.88	98.5	98.8	90-110	0.3	10	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103461 CCR - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103461001	GWA-4	EPA 3005A	DIGM/4316	EPA 6010D	ICP/5014
103461002	GWC-5	EPA 3005A	DIGM/4316	EPA 6010D	ICP/5014
103461003	GWA-11	EPA 3005A	DIGM/4316	EPA 6010D	ICP/5014
103461004	GWC-10	EPA 3005A	DIGM/4316	EPA 6010D	ICP/5014
103461005	GWA-2	EPA 3005A	DIGM/4316	EPA 6010D	ICP/5014
103461006	GWA-3	EPA 3005A	DIGM/4316	EPA 6010D	ICP/5014
103461007	GWC-6	EPA 3005A	DIGM/4316	EPA 6010D	ICP/5014
103461008	GWA-1	EPA 3005A	DIGM/4316	EPA 6010D	ICP/5014
103461009	Dup-1	EPA 3005A	DIGM/4316	EPA 6010D	ICP/5014
103461001	GWA-4	EPA 3005A	DIGM/4317	EPA 6020B	ICPM/1068
103461002	GWC-5	EPA 3005A	DIGM/4317	EPA 6020B	ICPM/1068
103461003	GWA-11	EPA 3005A	DIGM/4317	EPA 6020B	ICPM/1068
103461004	GWC-10	EPA 3005A	DIGM/4317	EPA 6020B	ICPM/1068
103461005	GWA-2	EPA 3005A	DIGM/4317	EPA 6020B	ICPM/1068
103461006	GWA-3	EPA 3005A	DIGM/4317	EPA 6020B	ICPM/1068
103461007	GWC-6	EPA 3005A	DIGM/4317	EPA 6020B	ICPM/1068
103461008	GWA-1	EPA 3005A	DIGM/4317	EPA 6020B	ICPM/1068
103461009	Dup-1	EPA 3005A	DIGM/4317	EPA 6020B	ICPM/1068
103461001	GWA-4	SM 2540C	GRAV/2873		
103461002	GWC-5	SM 2540C	GRAV/2873		
103461003	GWA-11	SM 2540C	GRAV/2873		
103461004	GWC-10	SM 2540C	GRAV/2873		
103461005	GWA-2	SM 2540C	GRAV/2873		
103461006	GWA-3	SM 2540C	GRAV/2873		
103461007	GWC-6	SM 2540C	GRAV/2873		
103461008	GWA-1	SM 2540C	GRAV/2873		
103461009	Dup-1	SM 2540C	GRAV/2873		
103461001	GWA-4	EPA 7470A	HGPR/1658	EPA 7470A	CVAA/1843
103461002	GWC-5	EPA 7470A	HGPR/1658	EPA 7470A	CVAA/1843
103461003	GWA-11	EPA 7470A	HGPR/1658	EPA 7470A	CVAA/1843
103461004	GWC-10	EPA 7470A	HGPR/1658	EPA 7470A	CVAA/1843

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103461 CCR - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103461005	GWA-2	EPA 7470A	HGPR/1658	EPA 7470A	CVAA/1843
103461006	GWA-3	EPA 7470A	HGPR/1658	EPA 7470A	CVAA/1843
103461007	GWC-6	EPA 7470A	HGPR/1658	EPA 7470A	CVAA/1843
103461008	GWA-1	EPA 7470A	HGPR/1658	EPA 7470A	CVAA/1843
103461009	Dup-1	EPA 7470A	HGPR/1658	EPA 7470A	CVAA/1843
103461001	GWA-4	EPA 300	IC/3033		
103461002	GWC-5	EPA 300	IC/3033		
103461003	GWA-11	EPA 300	IC/3033		
103461004	GWC-10	EPA 300	IC/3033		
103461005	GWA-2	EPA 300	IC/3033		
103461006	GWA-3	EPA 300	IC/3033		
103461007	GWC-6	EPA 300	IC/3033		
103461008	GWA-1	EPA 300	IC/3033		
103461009	Dup-1	EPA 300	IC/3033		

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

LABORATORY CERTIFICATIONS

Workorder: 103461 CCR - Huffaker Rd

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 103461
Reviewed By: AMJ 5/18/16

[12] Page 1 of 1

[13] X Standard Turnaround Time

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

Company: [1] Southern Company Services
Report To Joju Abraham
Address: [2] 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax: [3] 404-506-7239
Contact: [4] Joju Abraham
Project Location: [5] Plant Hammond
Account Number: [6]
Special Instructions: [7] Hammond Huffaker CCR GW

Sample Shipment Date: [8] 5-18-2016
Sampled By: [9] Myles Rogers (MR)
Print Name
Signature
Sample Received Date: [10]
Sample Received By: [11]

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

PRESERVATIVE [21]

HNO3	HNO3	Ice				
N	N	I				

ANALYSIS REQUESTED [22]

LAB USE ONLY [14] LAB ID	Sample Number [15]	Collection [16] Date	Collection [16] Time	Sample Description [17]	18 Sample Type	19 Matrix	20 No. of Containers	Metals app. III + IV EPA 6020 & EPA 7470	Radium 226 + 228 Ga Tech	Cl, F, SO4 EPA 300	TDS SM2540C				LAB USE ONLY [26] Comments
103461001	GWA-4	5-17-16	11:35	Huffaker Rd GW	G	GW	3	1	1	1					
↓ 2	GWC-5	5-17-16	15:10	Huffaker Rd GW	G	GW	3	1	1	1					

Sample Type Key: [23]
G-Grab C-Composite
O-Other

Matrix Key: [24]
O-Oil SW-Surface Water
S-Solid GW-Ground Water
SL-Sludge WW-Waste Water
W-Wipe DW-Drinking Water
LQ-Liquid OW-Other Water

Preservative Key: [25]
H-Hydrochloric Acid
N-Nitric Acid
S-Sulfuric Acid
SH-Sodium Hydroxide
P-Phosphoric Acid
ST-Sodium Thiosulfate
I-Ice
U-Unpreserved
O-Other (Specify)

FOR CHAIN OF CUSTODY USE ONLY [27]
Custody Seal # 20160518-3

Relinquished by: [28] Myles Rogers Date/Time 5/17/2016 17:00
Received by: [29] Date/Time 5-18-16 @0830
Relinquished by: Date/Time
Received by: Date/Time

LAB USE ONLY: Sample Receipt Information [30]
3.9°C (GDEL-IR-4P) ice, hand, cooler in good condition, pH<2, seal intact

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

2

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 103461
Reviewed By: AMJ 5/18/16

[11] Page 1 of 1

Sample Shipment Date:[8] 5-18-2016
Sample Received Date:[9]
Sampled By:[10] Tracy Wardell (TW)

[X] [12] Standard Turnaround Time
[ ] # of Business Days (Rush)
(Must be cleared through Env. Lab. Prior to shipment)

Company:[1] Southern Company Services
Report To Joju Abraham
Address:[2] 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax:[3] 404-506-7239
Contact:[4] Joju Abraham
Project Location:[5] Plant Hammond
Account Number:[6]
Special Instructions:[7] Hammond Huffaker CCR GW

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

PRESERVATIVE [20]: HNO3 N | Ice I | HNO3 N

ANALYSIS REQUESTED [21]

Sample Type Key: [22] G-Grab O-Other C-Composite

Matrix Key: [23] O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water

Preservative Key: [24] H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved

LAB USE ONLY [13] LAB ID	Sample Number [14]	Collection [15] Date	Collection [15] Time	Sample Description [16]	[17] Sample Type	[18] Matrix	[19] No. of Containers	Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech					LAB USE ONLY [25] Comments
103461003	GWA-11	5-17-16	12:54	Huffaker Rd GW	G	GW	3	1	1	1					
103461004	GWC-10	5-17-16	15:20	Huffaker Rd GW	G	GW	3	1	1	1					

		LAB USE ONLY: Sample Receipt Information [28]
Relinquished by:[26]	Date/Time 5/17/2016 17:00	3.9°C (GPEL-IR-4p) ice, hand, cooler in good condition, pH<2
Received by:[27]	Date/Time 5-18-16 @0830	Seal intact
Relinquished by:	Date/Time	
Received by:	Date/Time	

Page 34 of 37

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 103461
Reviewed By: AMJ 5/18/16

[12] Page 1 of 1

[X] [13] Standard Turnaround Time

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

Company: [1] Southern Company Services
Report To Joju Abraham
Address: [2] 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308

Phone/Fax: [3] 404-506-7239
Contact: [4] Joju Abraham
Project Location: [5] Plant Hammond
Account Number: [6]
Special Instructions: [7] Hammond Huffaker CCR GW

Sample Shipment Date: [8] 5-18-2016
Sampled By: [9] Andreas Shoredits (AS) *Print Name*
Signature
Sample Received Date: [10]
Sample Received By: [11]

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

PRESERVATIVE [21]

HNO3	Ice	HNO3				
N	I	N				

ANALYSIS REQUESTED [22]

LAB USE ONLY [14] LAB ID	Sample Number [15]	Collection [16] Date	Collection [16] Time	Sample Description [17]	[18] Sample Type	[19] Matrix	[20] No. of Containers	Metals app III & IV EPA 6020 + EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 + 228 Ga Tech					LAB USE ONLY [26] Comments
103461005	GWA-2	5-17-16	10:15	Huffaker Rd GW	G	GW	3	1	1	1					
6	GWA-3	5-17-16	13:55	Huffaker Rd GW	G	GW	3	1	1	1					
7	GWC-6	5-17-16	17:40	Huffaker Rd GW	G	GW	3	1	1	1					

Sample Type Key: [23]
G-Grab C-Composite
O-Other

Matrix Key: [24]
O-Oil SW-Surface Water
S-Solid GW-Ground Water
SL-Sludge WW-Waste Water
W-Wipe DW-Drinking Water
LQ-Liquid OW-Other Water

Preservative Key: [25]
H-Hydrochloric Acid
N-Nitric Acid
S-Sulfuric Acid
SH-Sodium Hydroxide
P-Phosphoric Acid
ST-Sodium Thiosulfate
I-Ice
U-Unpreserved
O-Other (Specify)

FOR CHAIN OF CUSTODY USE ONLY [27]

Relinquished by: [28] Custody Seal # 20160518-4	Date/Time 5/17/16 19:00
Received by: [29]	Date/Time 5-18-16 @0830
Relinquished by:	Date/Time
Received by:	Date/Time

LAB USE ONLY: Sample Receipt Information [30]
3.9°C ((GPEL-IA-4P) ice, hand, cooler in good condition, pH<2, seal intact

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

1

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 103461
Reviewed By: AMJ 5/18/16

[12] Page 1 of 1

[X] [13] Standard Turnaround Time

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

Company: [1] Southern Company Services
Report To Joju Abraham
Address: [2] 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308

Phone/Fax: [3] 404-506-7239
Contact: [4] Joju Abraham
Project Location: [5] Plant Hammond
Account Number: [6]
Special Instructions: [7] Hammond Huffaker CCR GW

Sample Shipment Date: [8] 5-18-2016
Sampled By: [9] Tracy Wardell (TS) *Print Name*
Signature
Sample Received Date: [10]
Sample Received By: [11]

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

PRESERVATIVE [21]

HNO3 N	Ice I	HNO3 N				

ANALYSIS REQUESTED [22]

LAB USE ONLY [14] LAB ID	Sample Number [15]	Collection [16] Date	Collection [16] Time	Sample Description [17]	[18] Sample Type	[19] Matrix	[20] No. of Containers	Metals app. III+IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300	TDS SM2540C	Radium 226+228 Ga Tech					LAB USE ONLY [26] Comments
10346 1008	GWA-1	5-17-16	10:27	Huffaker Rd. GW	G	GW	3	1	1	1						
↓ 9	DUP-1	5-17-16		Huffaker Rd GW	G	GW	3	1	1	1						

Sample Type Key: [23]
G-Grab C-Composite
O-Other

Matrix Key: [24]
O-Oil SW-Surface Water
S-Solid GW-Ground Water
SL-Sludge WW-Waste Water
W-Wipe DW-Drinking Water
LQ-Liquid OW-Other Water

Preservative Key: [25]
H-Hydrochloric Acid
N-Nitric Acid
S-Sulfuric Acid
SH-Sodium Hydroxide
P-Phosphoric Acid
ST-Sodium Thiosulfate
I-Ice
U-Unpreserved
O-Other (Specify)

FOR CHAIN OF CUSTODY USE ONLY [27]

Relinquished by: [28] TW	Custody Seal # 20160516	Date/Time 5/19/2016 17:00
Received by: [29]		Date/Time 5-18-16 0830
Relinquished by:		Date/Time
Received by:		Date/Time

LAB USE ONLY: Sample Receipt Information [30]
3.9°C (GPEL-IR-4P) ice, hand, cooler in good condition, pH<2, Seal intact

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client: Hammond
Workorder No.: 103461
Carrier: HAND

# of Samples: 9
Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.9
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	False	Sample Dup-1 missing sample collection time from COC and sample container label.
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:

Completed By: Sutton, Nick

Date: 05/18/2016

ENVIRONMENTAL LABORATORY

Georgia Power Environmental Laboratories
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June 15, 2016

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

RE: Workorder: 103483 CCR - Huffaker Rd

Dear Joju Abraham:

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

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

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

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

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

L. Biddy

lbbiddy@southernco.com

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

Respectfully submitted,

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

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SAMPLE SUMMARY

Workorder: 103483 CCR - Huffaker Rd

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103483001	GWC-7	N/A	Water	5/18/2016 11:20	5/19/2016 07:45
103483002	GWC-19	N/A	Water	5/18/2016 15:15	5/19/2016 07:45
103483003	FB-1	N/A	Water	5/18/2016 08:15	5/19/2016 07:45
103483004	GWC-20	N/A	Water	5/18/2016 10:06	5/19/2016 07:45
103483005	GWC-21	N/A	Water	5/18/2016 11:51	5/19/2016 07:45
103483006	GWC-22	N/A	Water	5/18/2016 13:43	5/19/2016 07:45
103483007	GWC-8	N/A	Water	5/18/2016 09:37	5/19/2016 07:45
103483008	GWC-9	N/A	Water	5/18/2016 12:03	5/19/2016 07:45
103483009	GWC-18	N/A	Water	5/18/2016 14:42	5/19/2016 07:45
103483010	DUP-2	N/A	Water	5/18/2016 00:00	5/19/2016 07:45

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483001**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**GWC-7**	**Date Collected:**	**5/18/2016 11:20**
Sample Description	**Plant Hammond-Huffaker**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 16:57	MRP	
Calcium	46.5	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 16:57	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:13	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:13	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0284J	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Boron	0.0686J	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Cobalt	0.0210	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Arsenic	0.00451J	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Barium	0.245	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 19:45	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/27/2016 12:26	LBB	
Sulfate	100	mg/L	3.00	10.0			5/27/2016 12:26	LBB	
Chloride	1.35	mg/L	0.0400	0.2500			5/26/2016 03:51	LBB	
Fluoride	0.1766J	mg/L	0.0100	0.3000			5/26/2016 03:51	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	
TDS	276	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483002**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**GWC-19**	**Date Collected:**	**5/18/2016 15:15**
Sample Description	**Plant Hammond-Huffaker**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 17:03	MRP	
Calcium	48.2	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 17:03	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:15	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:15	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0179J	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Boron	0.186	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Barium	0.146	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 19:50	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/26/2016 04:21	LBB	
Sulfate	18.4	mg/L	0.3000	1.00			5/26/2016 04:21	LBB	
Chloride	1.74	mg/L	0.0400	0.2500			5/26/2016 04:21	LBB	
Fluoride	0.1459J	mg/L	0.0100	0.3000			5/26/2016 04:21	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	
TDS	245	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483003**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**FB-1**	**Date Collected:**	**5/18/2016 08:15**
Sample Description	**Plant Hammond-Huffaker**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 17:09	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 17:09	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:18	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:18	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 19:55	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							5/26/2016 04:51	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			5/26/2016 04:51	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			5/26/2016 04:51	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			5/26/2016 04:51	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	
TDS	<25	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483004**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**GWC-20**	**Date Collected:**	**5/18/2016 10:06**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 17:15	MRP	
Calcium	59.0	mg/L	1.00	5.00	6/1/2016 11:30	KLW	6/6/2016 17:15	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:21	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:21	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0110J	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Boron	0.0229J	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Barium	0.128	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 19:59	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/2/2016 20:17	LBB	
Sulfate	19.2	mg/L	0.3000	1.00			6/2/2016 20:17	LBB	
Chloride	1.57	mg/L	0.0400	0.2500			6/2/2016 20:17	LBB	
Fluoride	0.0864J	mg/L	0.0100	0.3000			6/2/2016 20:17	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	
TDS	213	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483005**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**GWC-21**	**Date Collected:**	**5/18/2016 11:51**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 17:21	MRP	
Calcium	39.2	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 17:21	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:23	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:23	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Boron	0.0289J	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Barium	0.0557	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:04	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/2/2016 20:47	LBB	
Sulfate	26.2	mg/L	0.3000	1.00			6/2/2016 20:47	LBB	
Chloride	2.61	mg/L	0.0400	0.2500			6/2/2016 20:47	LBB	
Fluoride	0.0476J	mg/L	0.0100	0.3000			6/2/2016 20:47	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	
TDS	153	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483006**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**GWC-22**	**Date Collected:**	**5/18/2016 13:43**
Sample Description	**Huffaker Rd GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 17:27	MRP	
Calcium	50.7	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 17:27	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:26	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:26	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0152J	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Boron	0.0781J	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Barium	0.0983	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:18	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/2/2016 21:17	LBB	
Sulfate	6.88	mg/L	0.3000	1.00			6/2/2016 21:17	LBB	
Chloride	1.25	mg/L	0.0400	0.2500			6/2/2016 21:17	LBB	
Fluoride	0.0839J	mg/L	0.0100	0.3000			6/2/2016 21:17	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/23/2016 18:00	KLW	
TDS	212	mg/L	25	25			5/23/2016 18:00	KLW	

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483007**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**GWC-8**	**Date Collected:**	**5/18/2016 09:37**
Sample Description	**Plant Hammond-Huffaker**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 17:33	MRP	
Calcium	63.7	mg/L	1.00	5.00	6/1/2016 11:30	KLW	6/6/2016 17:33	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:40	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:40	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Boron	0.0280J	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Barium	0.0957	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:23	ELS	

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483008**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**GWC-9**	**Date Collected:**	**5/18/2016 12:03**
Sample Description	**Plant Hammond-Huffaker**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 17:39	MRP	
Calcium	37.3	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 17:39	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A						
			Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:48	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:48	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A						
			Analytical Method: EPA 6020B						
Lithium	0.0164J	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Boron	0.0202J	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Barium	0.0629	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:28	ELS	

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483009**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**GWC-18**	**Date Collected:**	**5/18/2016 14:42**
Sample Description	**Plant Hammond-Huffaker**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:09	MRP	
Calcium	41.9	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 18:09	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:53	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:53	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0146J	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Boron	0.139	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Barium	0.0763	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:51	ELS	

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ANALYTICAL RESULTS

Workorder: 103483 CCR - Huffaker Rd

Lab ID:	**103483010**	**Date Received:**	**5/19/2016 07:45**
Sample ID:	**DUP-2**	**Date Collected:**	**5/18/2016 00:00**
Sample Description	**Plant Hammond-Huffaker**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:15	MRP	
Calcium	43.9	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 18:15	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/24/2016 06:25	WCM	5/25/2016 08:56	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/24/2016 06:25	WCM	5/25/2016 08:56	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0152J	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Boron	0.147	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Barium	0.0798	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 20:56	ELS	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 103483 CCR - Huffaker Rd

PARAMETER QUALIFIERS

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

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QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

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

QC Batch Method: EPA 3005A

Associated Lab Samples: 103483001, 103483002, 103483003, 103483004, 103483005, 103483006, 103483007, 103483008, 103483009, 103483010, 103518001, 103518002, 103518003

METHOD BLANK: 106220

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: 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	

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QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106222 106223 Original: 103483005

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	0.00069	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	

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QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

QC Batch: GRAV/2875 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples: 103477004, 103477005, 103477006, 103477007, 103477008, 103477009, 103477010, 103477011, 103477012, 103483001, 103483002, 103483003, 103483004, 103483005, 103483006, 103504001, 103504002, 103504003

METHOD BLANK: 106241

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

LABORATORY CONTROL SAMPLE: 106244

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	224	92.9	90-110	

SAMPLE DUPLICATE: 106242 Original: 103477004

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	29	29	0	20	

SAMPLE DUPLICATE: 106243 Original: 103483001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	276	249	10.3	20	

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QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

QC Batch: HGPR/1659 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 103463001, 103463002, 103463003, 103463004, 103483001, 103483002, 103483003, 103483004, 103483005, 103483006, 103483007, 103483008, 103483009, 103483010

METHOD BLANK: 106258

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

METHOD BLANK: 106264

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

LABORATORY CONTROL SAMPLE: 106259

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

LABORATORY CONTROL SAMPLE: 106260

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0121	99	80-120	

LABORATORY CONTROL SAMPLE: 106265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00196	98	80-120	

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QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106261 106262 Original: 103463001

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	0.00207	0.00200	104	100	80-120	3.9	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106266 106267 Original: 103483007

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

SAMPLE DUPLICATE: 106263 Original: 103463002

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

SAMPLE DUPLICATE: 106268 Original: 103483008

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

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

QC Batch Method: EPA 3005A

Associated Lab Samples: 103483001, 103483002, 103483003, 103483004, 103483005, 103483006, 103483007, 103483008, 103483009, 103483010, 103518001, 103518002, 103518003

METHOD BLANK: 106296

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

LABORATORY CONTROL SAMPLE: 106297

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

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

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
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Atlanta, Ga. 30339
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Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

QC Batch: IC/3033 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 103463001 103463002 103463003 103463004 103483001 103483002 103483003

METHOD BLANK: 106322

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

LABORATORY CONTROL SAMPLE: 106315

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.6	103	90-110	
Fluoride	mg/L	6.83	6.82	99.9	90-110	

LABORATORY CONTROL SAMPLE: 106323

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4684	93.7		
Sulfate	mg/L	5	4.84	96.9		
Fluoride	mg/L	0.5	0.5169	103		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106320 106321 Original: 103440004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	0	10	10.0	9.95	100	99.5	90-110	0.5	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106324 106325 Original: 103483003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0	1	0.9525	0.9576	95.3	95.8	90-110	0.52	10	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106326 106327 Original: 103483003

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	1.03	1.04	103	104	90-110	0.97	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106328 106329 Original: 103483003

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	9.85	9.88	98.5	98.8	90-110	0.3	10	

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

QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

QC Batch: IC/3035 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 103483004 103483005 103483006 103518001 103533001 103533002 103533003 103533004 103533005 103533006

METHOD BLANK: 106350

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 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 CONTROL SAMPLE: 106351

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4873	97.5	90-110	
Sulfate	mg/L	5	4.95	99.1	90-110	
Fluoride	mg/L	0.5	0.5246	105	90-110	

LABORATORY CONTROL SAMPLE: 106353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.9	105	90-110	
Fluoride	mg/L	6.83	6.92	101	90-110	

LABORATORY CONTROL SAMPLE: 106361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% 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	

CERTIFICATE OF ANALYSIS

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QUALITY CONTROL DATA

Workorder: 103483 CCR - Huffaker Rd

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106354 106355 Original: 103517002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0045	1	0.9868	0.9925	98.2	98.8	90-110	0.61	10	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103483 CCR - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103483001	GWC-7	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483002	GWC-19	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483003	FB-1	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483004	GWC-20	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483005	GWC-21	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483006	GWC-22	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483007	GWC-8	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483008	GWC-9	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483009	GWC-18	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483010	DUP-2	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103483001	GWC-7	SM 2540C	GRAV/2875		
103483002	GWC-19	SM 2540C	GRAV/2875		
103483003	FB-1	SM 2540C	GRAV/2875		
103483004	GWC-20	SM 2540C	GRAV/2875		
103483005	GWC-21	SM 2540C	GRAV/2875		
103483006	GWC-22	SM 2540C	GRAV/2875		
103483001	GWC-7	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483002	GWC-19	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483003	FB-1	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483004	GWC-20	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483005	GWC-21	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483006	GWC-22	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483007	GWC-8	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483008	GWC-9	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483009	GWC-18	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483010	DUP-2	EPA 7470A	HGPR/1659	EPA 7470A	CVAA/1844
103483001	GWC-7	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103483002	GWC-19	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103483003	FB-1	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103483004	GWC-20	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103483005	GWC-21	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019

CERTIFICATE OF ANALYSIS

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Fax: (404) 799-2141

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103483 CCR - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103483006	GWC-22	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103483007	GWC-8	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103483008	GWC-9	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103483009	GWC-18	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103483010	DUP-2	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103483001	GWC-7	EPA 300	IC/3033		
103483002	GWC-19	EPA 300	IC/3033		
103483003	FB-1	EPA 300	IC/3033		
103483004	GWC-20	EPA 300	IC/3035		
103483005	GWC-21	EPA 300	IC/3035		
103483006	GWC-22	EPA 300	IC/3035		

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

LABORATORY CERTIFICATIONS

Workorder: 103483 CCR - Huffaker Rd

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY — Work Order No. 103483 — Reviewed By: [signature] 5-20-16

[11] Page 1 of 1

Sample Shipment Date:[8] 5-18-2016
Sample Received Date:[9]
Sampled By:[10] ANDREAS SHOREDEFTS

[X] [12] Standard Turnaround Time
[ ] # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment)

Company:[1] Southern Company Services
Report To Address:[2] Joju Abraham, 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308
Phone/Fax:[3] 404-506-7239
Contact:[4] Joju Abraham
Project Location:[5] Plant Hammond
Account Number:[6]
Special Instructions:[7] Hammond Huffaker CCR GW

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

								PRESERVATIVE [20]						
								HNO3 N	Ice I	HNO3 N				
								ANALYSIS REQUESTED [21]						
LAB USE ONLY [13] LAB ID	Sample Number [14]	Collection [15] Date	Collection [15] Time	Sample Description [16]	Sample Type (17)	Matrix (18)	No. of Containers (19)	Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech				LAB USE ONLY [25] Comments
103483001	GWC-7	5/18/16	11:40	PLANT HAMMOND-HUFFAKER	G	GW	3	1	1	1				
2	GWC-19	5/18/16	15:15	PLANT HAMMOND-HUFFAKER	G	GW	3	1	1	1				
3	FB-1	5/18/16	08:15	PLANT HAMMOND-HUFFAKER	G		3	1	1	1				

Sample Type Key: 22 — G-Grab O-Other C-Composite
Matrix Key: 23 — O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water
Preservative Key: [24] — H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved

Relinquished by:[26] [signature]	Date/Time 5/18/16 17:00	**LAB USE ONLY:** Sample Receipt Information [28]
Received by:[27] [signature]	Date/Time 5/19/16 @ 7:45	3.7C° (GPEL-IR-4P), with ice, cooler in good ~~FOST~~ Condition seal, PH<2, Hand AY 5/19/16
Relinquished by: [signature]	Date/Time	
Received by:	Date/Time AY 5/19/16	

Cooler # 001066

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY — Work Order No. 103483 — Reviewed By: 5-20-16

[11] Page 1 of 1

Sample Shipment Date:[8] 05/19/16
Sample Received Date:[9]
Sampled By:[10] Tracy Wardell

[X] [12] Standard Turnaround Time
[ ] # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment)

Company:[1] Southern Company Services
Report To Joju Abraham
Address:[2] 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax:[3] 404-506-7239
Contact:[4] Joju Abraham
Project Location:[5] Plant Hammond
Account Number:[6]
Special Instructions:[7] Hammond Huffaker CCR GW

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

Sample Type Key: [22] G-Grab O-Other C-Composite

Matrix Key: [23] O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water

Preservative Key: [24] H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved

LAB USE ONLY [13] LAB ID	Sample Number [14]	Collection [15] Date	Collection [15] Time	Sample Description [16]	[17] Sample Type	[18] Matrix	[19] No. of Containers	PRESERVATIVE [20] HNO3 N	PRESERVATIVE [20] Ice I	PRESERVATIVE [20] HNO3 N	ANALYSIS REQUESTED [21] Metals app. III & IV EPA 6020 & EPA 7470	ANALYSIS REQUESTED [21] Cl, F, SO4 EPA 300 TDS SM2540C	ANALYSIS REQUESTED [21] Radium 226 & 228 Ga Tech	LAB USE ONLY [25] Comments
103483004	GWC-20	05/18/16	1006	Huffaker Rd GW	G	GW	3	1	1	1	1	1	1	
5	GWC-21	05/18/16	1151	Huffaker Rd GW	G	GW	3	1	1	1	1	1	1	
6	GWC-22	05/18/16	1343	Huffaker Rd GW	G	GW	3	1	1	1	1	1	1	

Relinquished by:[26]	Date/Time 5/18/16 1600	LAB USE ONLY: Sample Receipt Information [28] 3.7°C (GPEN IR-4P), with ice, cooler in good condition, Seal
Received by:[27]	Date/Time 5/19/16 @ 7:45	PHL2, Hand.
Relinquished by:	Date/Time	
Received by: AMJ 5/19/16	Date/Time	

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 103483
Reviewed By: 5-20-16

[11] Page 1 of 1

Sample Shipment Date:[8] 5/19/16
Sample Received Date:[9]
Sampled By:[10] Myles Rogers

[X] [12] Standard Turnaround Time
[ ] # of Business Days (Rush)
(Must be cleared through Env. Lab. Prior to shipment)

Company:[1] Southern Company Services
Report To Joju Abraham
Address:[2] 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax:[3] 404-506-7239
Contact:[4] Joju Abraham
Project Location:[5] Plant Hammond
Account Number:[6]
Special Instructions:[7] Hammond Huffaker CCR GW

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

PRESERVATIVE [20]: HNO3 N | Ice I | HNO3 N

ANALYSIS REQUESTED [21]

Sample Type Key: [22] G-Grab O-Other C-Composite

Matrix Key: [23] O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water

Preservative Key: [24] H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved

LAB USE ONLY [13] LAB ID	Sample Number [14]	Collection [15] Date	Time	Sample Description [16]	Sample Type [17]	Matrix [18]	No. of Containers [19]	Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech					LAB USE ONLY [25] Comments
103483007	GWC-8	5/18/16	0937	Plant Hammond - Huffaker	G	GW	3	1	1	1					
8	GWC-9	5/18/16	1203	Plant Hammond - Huffaker	G	GW	3	1	1	1					
9	GWC-18	5/18/16	1442	Plant Hammond - Huffaker	G	GW	3	1	1	1					
10	DUP-2	5/18/16		Plant Hammond - Huffaker	G	GW	3	1	1	1					

Relinquished by:[26]	Date/Time 5/18/16 1700	LAB USE ONLY: Sample Receipt Information [28]
Received by:[27]	Date/Time 5/18/16 7:45	7.4°C (GPEL-IR-4P), withice, cooler in good Condition, Seal
Relinquished by:	Date/Time	pH<2, Hard. All sample for the Nutrient sample Container is out temp-
Received by:	Date/Time	requirement, samples will be re-collected.

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client: Hammond **# of Samples:** 10
Workorder No.: 103483 **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	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.7
COC is present	True	
COC is filled out in ink and is legible	True	Missing matrix field on COC and missing collection time on Dup-2.
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	False	Sample GWC-7 collection time different from COC to sample container label, sample will be logged in using the information on sample container label.
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:

Samples (GWC-8, GWC-9, GWC-18, and Dup-2) samples arrived to the laboratory outside temperature requirement which is less than 6 Celsius. Metal samples will be analyzed and Nutrient samples will be re-collected based on email provided by customer.

Completed By: Jassim, Ayssar **Date:** 05/19/2016

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

June 15, 2016

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

RE: Workorder: 103517 CCR - Huffaker Rd

Dear Joju Abraham:

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

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

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

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

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

L. Biddy

lbbiddy@southernco.com

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

Respectfully submitted,

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

SAMPLE SUMMARY

Workorder: 103517 CCR - Huffaker Rd

Lab ID	Sample ID	Analysis Request Number	Matrix	Date Collected	Date Received
103517001	FERB-1	N/A	Water	5/19/2016 07:40	5/20/2016 08:15
103517002	FB-2	N/A	Water	5/19/2016 07:45	5/20/2016 08:15
103517003	FERB-2	N/A	Water	5/19/2016 07:50	5/20/2016 08:15
103517004	GWC-23	N/A	Water	5/19/2016 13:15	5/20/2016 08:15
103517005	GWC-8	N/A	Water	5/19/2016 13:19	5/20/2016 08:15
103517006	GWC-18	N/A	Water	5/19/2016 14:45	5/20/2016 08:15
103517007	Dup-2	N/A	Water	5/19/2016 00:00	5/20/2016 08:15
103517008	GWC-9	N/A	Water	5/19/2016 15:12	5/20/2016 08:15

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

ANALYTICAL RESULTS

Workorder: 103517 CCR - Huffaker Rd

Lab ID:	**103517001**	**Date Received:**	**5/20/2016 08:15**
Sample ID:	**FERB-1**	**Date Collected:**	**5/19/2016 07:40**
Sample Description	**Field Equipment Rinse Blank**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:21	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 18:21	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 08:11	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 08:11	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:01	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/2/2016 22:47	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/2/2016 22:47	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/2/2016 22:47	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/2/2016 22:47	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	<25	mg/L	25	25			5/24/2016 18:35	KLW	

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ANALYTICAL RESULTS

Workorder: 103517 CCR - Huffaker Rd

Lab ID:	**103517002**	**Date Received:**	**5/20/2016 08:15**
Sample ID:	**FB-2**	**Date Collected:**	**5/19/2016 07:45**
Sample Description	**Field Blank**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:27	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 18:27	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 08:20	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 08:20	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:05	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/2/2016 23:17	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/2/2016 23:17	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/2/2016 23:17	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/2/2016 23:17	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	<25	mg/L	25	25			5/24/2016 18:35	KLW	

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ANALYTICAL RESULTS

Workorder: 103517 CCR - Huffaker Rd

Lab ID:	**103517003**	**Date Received:**	**5/20/2016 08:15**
Sample ID:	**FERB-2**	**Date Collected:**	**5/19/2016 07:50**
Sample Description	**Field Equipment Rinse Blank**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:33	MRP	
Calcium	<0.500	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 18:33	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 08:25	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 08:25	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	<0.0500	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Boron	<0.100	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Barium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:10	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/3/2016 00:47	LBB	
Sulfate	<1.00	mg/L	0.3000	1.00			6/3/2016 00:47	LBB	
Chloride	<0.2500	mg/L	0.0400	0.2500			6/3/2016 00:47	LBB	
Fluoride	<0.3000	mg/L	0.0100	0.3000			6/3/2016 00:47	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	<25	mg/L	25	25			5/24/2016 18:35	KLW	

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ANALYTICAL RESULTS

Workorder: 103517 CCR - Huffaker Rd

Lab ID:	**103517004**	**Date Received:**	**5/20/2016 08:15**
Sample ID:	**GWC-23**	**Date Collected:**	**5/19/2016 13:15**
Sample Description	**Huffaker GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 6010D			Preparation Method: EPA 3005A Analytical Method: EPA 6010D						
INORGANICS					6/1/2016 11:30	KLW	6/6/2016 18:39	MRP	
Calcium	41.5	mg/L	0.100	0.500	6/1/2016 11:30	KLW	6/6/2016 18:39	MRP	
Analysis Desc: EPA 7470A			Preparation Method: EPA 7470A Analytical Method: EPA 7470A						
TOTAL METALS					5/26/2016 06:33	WCM	5/27/2016 08:28	WCM	
Mercury	<0.000500	mg/L	0.000250	0.000500	5/26/2016 06:33	WCM	5/27/2016 08:28	WCM	
Analysis Desc: EPA 6020B			Preparation Method: EPA 3005A Analytical Method: EPA 6020B						
Lithium	0.0166J	mg/L	0.0100	0.0500	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Beryllium	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Boron	0.0212J	mg/L	0.0200	0.100	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Chromium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Cobalt	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Arsenic	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Selenium	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Molybdenum	<0.0100	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Cadmium	<0.00100	mg/L	0.000100	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Antimony	<0.00300	mg/L	0.000600	0.00300	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Barium	0.0740	mg/L	0.00200	0.0100	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Thallium	<0.00100	mg/L	0.000200	0.00100	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Lead	<0.00500	mg/L	0.00100	0.00500	5/25/2016 10:15	KLW	5/27/2016 21:15	ELS	
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/3/2016 01:16	LBB	
Sulfate	5.42	mg/L	0.3000	1.00			6/3/2016 01:16	LBB	
Chloride	1.23	mg/L	0.0400	0.2500			6/3/2016 01:16	LBB	
Fluoride	0.0928J	mg/L	0.0100	0.3000			6/3/2016 01:16	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	173	mg/L	25	25			5/24/2016 18:35	KLW	

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ANALYTICAL RESULTS

Workorder: 103517 CCR - Huffaker Rd

Lab ID:	**103517005**	**Date Received:**	**5/20/2016 08:15**
Sample ID:	**GWC-8**	**Date Collected:**	**5/19/2016 13:19**
Sample Description	**Huffaker GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/3/2016 01:46	LBB	
Sulfate	31.7	mg/L	0.3000	1.00			6/3/2016 01:46	LBB	L1
Chloride	1.35	mg/L	0.0400	0.2500			6/3/2016 01:46	LBB	
Fluoride	0.1414J	mg/L	0.0100	0.3000			6/3/2016 01:46	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	236	mg/L	25	25			5/24/2016 18:35	KLW	

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ANALYTICAL RESULTS

Workorder: 103517 CCR - Huffaker Rd

Lab ID:	**103517006**	**Date Received:**	**5/20/2016 08:15**
Sample ID:	**GWC-18**	**Date Collected:**	**5/19/2016 14:45**
Sample Description	**Huffaker GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/3/2016 04:16	LBB	
Sulfate	9.58	mg/L	0.3000	1.00			6/3/2016 04:16	LBB	
Chloride	1.13	mg/L	0.0400	0.2500			6/3/2016 04:16	LBB	
Fluoride	0.1408J	mg/L	0.0100	0.3000			6/3/2016 04:16	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	204	mg/L	25	25			5/24/2016 18:35	KLW	

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ANALYTICAL RESULTS

Workorder: 103517 CCR - Huffaker Rd

Lab ID:	**103517007**	**Date Received:**	**5/20/2016 08:15**
Sample ID:	**Dup-2**	**Date Collected:**	**5/19/2016 00:00**
Sample Description	**Huffaker GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/3/2016 05:46	LBB	
Sulfate	9.67	mg/L	0.3000	1.00			6/3/2016 05:46	LBB	
Chloride	1.13	mg/L	0.0400	0.2500			6/3/2016 05:46	LBB	
Fluoride	0.1410J	mg/L	0.0100	0.3000			6/3/2016 05:46	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	204	mg/L	25	25			5/24/2016 18:35	KLW	

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ANALYTICAL RESULTS

Workorder: 103517 CCR - Huffaker Rd

Lab ID:	**103517008**	**Date Received:**	**5/20/2016 08:15**
Sample ID:	**GWC-9**	**Date Collected:**	**5/19/2016 15:12**
Sample Description	**Huffaker GW**	**Matrix:**	**Water**
Location	**Huffaker Rd**		

Parameters	Results	Units	MDL	RL	Prepared	By	Analyzed	By	Qual
Analysis Desc: EPA 300			Analytical Method: EPA 300						
TOTAL NUTRIENTS							6/3/2016 06:16	LBB	
Sulfate	64.3	mg/L	1.50	5.00			6/3/2016 10:45	LBB	
Chloride	0.9720	mg/L	0.0400	0.2500			6/3/2016 06:16	LBB	
Fluoride	0.0936J	mg/L	0.0100	0.3000			6/3/2016 06:16	LBB	
Analysis Desc: SM 2540C			Analytical Method: SM 2540C						
WET CHEMISTRY							5/24/2016 18:35	KLW	
TDS	215	mg/L	25	25			5/24/2016 18:35	KLW	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 103517 CCR - Huffaker Rd

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
L1	Value exceeds the instrument calibration range but is within the verified linear dynamic range.

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QUALITY CONTROL DATA

Workorder: 103517 CCR - Huffaker Rd

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

QC Batch Method: EPA 3005A

Associated Lab Samples: 103483001, 103483002, 103483003, 103483004, 103483005, 103483006, 103483007, 103483008, 103483009, 103483010, 103517001, 103517002, 103517003, 103517004, 103518001, 103518002, 103518003

METHOD BLANK: 106220

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: 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	

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QUALITY CONTROL DATA

Workorder: 103517 CCR - Huffaker Rd

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106222 106223 Original: 103483005

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	0.00069	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	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103517 CCR - Huffaker Rd

QC Batch: GRAV/2876 Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Associated Lab Samples: 103515001, 103515002, 103515003, 103517001, 103517002, 103517003, 103517004, 103517005, 103517006, 103517007, 103517008, 103518001, 103518002, 103518003, 103520001, 103520002, 103520003, 103520004, 103520005

METHOD BLANK: 106278

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

LABORATORY CONTROL SAMPLE: 106281

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
WET CHEMISTRY						
TDS	mg/L	241	240	99.6	90-110	

SAMPLE DUPLICATE: 106279 Original: 103515002

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

SAMPLE DUPLICATE: 106280 Original: 103520001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
WET CHEMISTRY						
TDS	mg/L	127	128	0.78	20	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103517 CCR - Huffaker Rd

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

QC Batch Method: EPA 3005A

Associated Lab Samples: 103483001, 103483002, 103483003, 103483004, 103483005, 103483006, 103483007, 103483008, 103483009, 103483010, 103517001, 103517002, 103517003, 103517004, 103518001, 103518002, 103518003

METHOD BLANK: 106296

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

LABORATORY CONTROL SAMPLE: 106297

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

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

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103517 CCR - Huffaker Rd

QC Batch: IC/3035 Analysis Method: EPA 300

QC Batch Method: EPA 300

Associated Lab Samples: 103483004, 103483005, 103483006, 103515002, 103515003, 103517001, 103517002, 103517003, 103517004, 103517005, 103517006, 103517007, 103517008, 103518001, 103533001, 103533002, 103533003, 103533004, 103533005, 103533006

METHOD BLANK: 106350

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Chloride	mg/L	<0.2500	0.2500	
Sulfate	mg/L	<1.00	1.00	
Fluoride	mg/L	<0.3000	0.3000	

METHOD BLANK: 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 CONTROL SAMPLE: 106351

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4873	97.5	90-110	
Sulfate	mg/L	5	4.95	99.1	90-110	
Fluoride	mg/L	0.5	0.5246	105	90-110	

LABORATORY CONTROL SAMPLE: 106353

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	11.3	11.9	105	90-110	
Fluoride	mg/L	6.83	6.92	101	90-110	

LABORATORY CONTROL SAMPLE: 106361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	0.5	0.4843	96.9	90-110	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103517 CCR - Huffaker Rd

LABORATORY CONTROL SAMPLE: 106361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	5	4.95	99	90-110	
Fluoride	mg/L	0.5	0.5255	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106354 106355 Original: 103517002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	0.0045	1	0.9868	0.9925	98.2	98.8	90-110	0.61	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106356 106357 Original: 103517002

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	1.07	1.07	107	107	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106358 106359 Original: 103517002

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	9.94	9.94	99.4	99.4	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106362 106363 Original: 103517006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Chloride	mg/L	1.13	1	2.12	2.12	98.6	98.1	90-110	0.51	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106364 106365 Original: 103517006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Fluoride	mg/L	0.1408	1	1.23	1.21	109	107	90-110	1.9	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106366 106367 Original: 103517006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Sulfate	mg/L	9.58	10	19.4	19.4	98.1	98	90-110	0.1	10	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103517 CCR - Huffaker Rd

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103517 CCR - Huffaker Rd

QC Batch: HGPR/1661 Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Associated Lab Samples: 103517001, 103517002, 103517003, 103517004, 103518001, 103518002, 103518003, 103520001, 103520002, 103520003, 103520004, 103520005, 103533001, 103533002, 103533003, 103533004, 103533005, 103533006

METHOD BLANK: 106454

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

METHOD BLANK: 106460

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

LABORATORY CONTROL SAMPLE: 106455

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00199	100	80-120	

LABORATORY CONTROL SAMPLE: 106456

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.0122	0.0123	101	80-120	

LABORATORY CONTROL SAMPLE: 106461

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TOTAL METALS						
Mercury	mg/L	0.002	0.00194	97	80-120	

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA

Workorder: 103517 CCR - Huffaker Rd

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106457 106458 Original: 103517001

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 & MATRIX SPIKE DUPLICATE: 106462 106463 Original: 103518001

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: 103517002

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: 103518002

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

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 103517 CCR - Huffaker Rd

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
103517001	FERB-1	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103517002	FB-2	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103517003	FERB-2	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103517004	GWC-23	EPA 3005A	DIGM/4321	EPA 6020B	ICPM/1076
103517001	FERB-1	SM 2540C	GRAV/2876		
103517002	FB-2	SM 2540C	GRAV/2876		
103517003	FERB-2	SM 2540C	GRAV/2876		
103517004	GWC-23	SM 2540C	GRAV/2876		
103517005	GWC-8	SM 2540C	GRAV/2876		
103517006	GWC-18	SM 2540C	GRAV/2876		
103517007	Dup-2	SM 2540C	GRAV/2876		
103517008	GWC-9	SM 2540C	GRAV/2876		
103517001	FERB-1	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103517002	FB-2	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103517003	FERB-2	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103517004	GWC-23	EPA 3005A	DIGM/4326	EPA 6010D	ICP/5019
103517001	FERB-1	EPA 300	IC/3035		
103517002	FB-2	EPA 300	IC/3035		
103517003	FERB-2	EPA 300	IC/3035		
103517004	GWC-23	EPA 300	IC/3035		
103517005	GWC-8	EPA 300	IC/3035		
103517006	GWC-18	EPA 300	IC/3035		
103517007	Dup-2	EPA 300	IC/3035		
103517008	GWC-9	EPA 300	IC/3035		
103517001	FERB-1	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
103517002	FB-2	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
103517003	FERB-2	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845
103517004	GWC-23	EPA 7470A	HGPR/1661	EPA 7470A	CVAA/1845

CERTIFICATE OF ANALYSIS

Georgia Power Environmental Laboratories
2480 Maner Road
Atlanta, Ga. 30339
Phone: (404) 799-2100
Fax: (404) 799-2141

LABORATORY CERTIFICATIONS

Workorder: 103517 CCR - Huffaker Rd

Certification Program	Certification Number
NELAC	E57554

CERTIFICATE OF ANALYSIS

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 103517
Reviewed By: MJ 5/20/16

[11] Page 1 of 1

Sample Shipment Date:[8] 5-20-2016
Sample Received Date:[9]
Sampled By:[10] Tracy Wardell (TS), Andreas Shoreditis (AS), Myles Rogers (MR), Greg Trask (GJ)
Signature

[X] [12] Standard Turnaround Time
[ ] # of Business Days (Rush)
(Must be cleared through Env. Lab. Prior to shipment)

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

Company:[1] Southern Company Services
Report To Joju Abraham
Address:[2] 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax:[3] 404-506-7239
Contact:[4] Joju Abraham
Project Location:[5] Plant Hammond
Account Number:[6]
Special Instructions:[7] Hammond Huffaker CCR GW

LAB USE ONLY [13] LAB ID	Sample Number [14]	Collection [15] Date	Collection [15] Time	Sample Description [16]	[17] Sample Type	[18] Matrix	[19] No. of Containers	PRESERVATIVE [20] HNO3 N	Ice I	HNO3 N	ANALYSIS REQUESTED [21] Metals app. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226 & 228 Ga Tech	LAB USE ONLY [25] Comments
10351700 1	~~FE~~RB-1	5/19/16	07:40	Field Equipment Rinse Blank	G	GW	3	1	1	1				GJ
2	FB-2	5/19/16	07:45	Field Blank	G	GW	3	1	1	1				GJ
3	FERB-2	5/19/16	07:50	Field Equipment Rinse Blank	G	GW	3	1	1	1				GJ
4	GWC-23	5/19/16	13:15	Huffaker GW	G	GW	3	1	1	1				AS
5	GWC-8	5/19/16	13:19	Huffaker GW	G	GW	1		1					MR
6	GWC-18	5/19/16	14:45	Huffaker GW	G	GW	1		1					TW
7	DUP-2	5/19/16	-	Huffaker GW	G	GW	1		1					TW
8	GWC-9	5/19/16	15:12	Huffaker GW	G	GW	1		1					MR

Sample Type Key: [22] G-Grab O-Other C-Composite

Matrix Key: [23] O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water

Preservative Key: [24] H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved

Relinquished by:[26]	20160520-1	Date/Time 5/19/2016 19:00
Received by:[27]		Date/Time 5-20-16 @ 8:15
Relinquished by:		Date/Time
Received by:		Date/Time

LAB USE ONLY: Sample Receipt Information [28]
4.1°C (GPEL-IR-UP) ice, seal intact, courier, cooler in good condition, pH<2

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client: Hammond
Workorder No.: 103517
Carrier: COURIER

# of Samples: 8
Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	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	Overwrite on Sample Number field.
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:

Completed By: Sutton, Nick

Date: 05/20/2016

ENVIRONMENTAL LABORATORY

PACE ANALYTICAL SERVICES, LLC.

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

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAB0020
February 08, 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

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

February 08, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-1	AAB0020-01	Ground Water	01/31/17 14:50	02/01/17 11:00
GWA-2	AAB0020-02	Ground Water	01/31/17 15:45	02/01/17 11:00

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

February 08, 2017

Report No.: AAB0020
Client ID: GWA-1
Date/Time Sampled: 1/31/2017 2:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0020-01
Date/Time Received: 2/1/2017 11:00:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	135	25	10	mg/L	SM 2540 C		1	02/03/17 11:35	02/03/17 11:35	7020078	JPT
Inorganic Anions											
Chloride	1.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	02/04/17 11:15	02/05/17 03:04	7020101	RLC
Fluoride	0.02	0.30	0.004	mg/L	EPA 300.0	J	1	02/04/17 11:15	02/05/17 03:04	7020101	RLC
Sulfate	5.1	1.0	0.09	mg/L	EPA 300.0	B-01	1	02/04/17 11:15	02/05/17 03:04	7020101	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Barium	0.0435	0.0100	0.0004	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Boron	0.0193	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Calcium	17.9	5.00	0.311	mg/L	EPA 6020B		10	02/02/17 15:00	02/07/17 13:52	7020031	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Lithium	0.0113	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/02/17 15:00	02/06/17 21:58	7020031	KLH
Mercury	0.00009	0.00050	0.000041	mg/L	EPA 7470A	B-01, J	1	02/06/17 12:45	02/06/17 17:31	7020113	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 08, 2017

Report No.: AAB0020
Client ID: GWA-2
Date/Time Sampled: 1/31/2017 3:45:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0020-02
Date/Time Received: 2/1/2017 11:00:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	253	25	10	mg/L	SM 2540 C		1	02/03/17 11:35	02/03/17 11:35	7020078	JPT
Inorganic Anions											
Chloride	2.5	0.25	0.01	mg/L	EPA 300.0	B-01	1	02/04/17 11:15	02/05/17 03:25	7020101	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	02/04/17 11:15	02/05/17 03:25	7020101	RLC
Sulfate	13	1.0	0.09	mg/L	EPA 300.0	B-01	1	02/04/17 11:15	02/05/17 03:25	7020101	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Barium	0.176	0.0100	0.0004	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Boron	0.0939	0.0400	0.0064	mg/L	EPA 6020B		1	02/02/17 15:00	02/07/17 16:32	7020031	KLH
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Calcium	39.2	5.00	0.311	mg/L	EPA 6020B		10	02/02/17 15:00	02/07/17 13:58	7020031	KLH
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Lithium	0.0121	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/02/17 15:00	02/06/17 22:10	7020031	KLH
Mercury	0.00009	0.00050	0.000041	mg/L	EPA 7470A	B-01, J	1	02/06/17 12:45	02/06/17 17:33	7020113	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 08, 2017

Report No.: AAB0020

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020078 - SM 2540 C											
Blank (7020078-BLK1)						Prepared & Analyzed: 02/03/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7020078-BS1)						Prepared & Analyzed: 02/03/17					
Total Dissolved Solids	413	25	10	mg/L	400.00		103	84-108			
Duplicate (7020078-DUP1)		**Source: AAB0005-02**				Prepared & Analyzed: 02/03/17					
Total Dissolved Solids	3840	25	10	mg/L		3830			0.3	10	
Duplicate (7020078-DUP2)		**Source: AAB0021-07**				Prepared & Analyzed: 02/03/17					
Total Dissolved Solids	14	25	10	mg/L		18			25	10	QR-01, J

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February 08, 2017

Report No.: AAB0020

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020101 - EPA 300.0											
Blank (7020101-BLK1)						Prepared & Analyzed: 02/04/17					
Chloride	0.07	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	0.26	1.0	0.09	mg/L							J
LCS (7020101-BS1)						Prepared & Analyzed: 02/04/17					
Chloride	10.9	0.25	0.01	mg/L	10.010		109	90-110			
Fluoride	10.8	0.30	0.004	mg/L	10.020		108	90-110			
Sulfate	10.8	1.0	0.09	mg/L	10.020		107	90-110			
Matrix Spike (7020101-MS1)		**Source: AAB0005-01**				Prepared & Analyzed: 02/04/17					
Chloride	235	0.25	0.01	mg/L	10.010	271	NR	90-110			QM-02
Fluoride	13.2	0.30	0.004	mg/L	10.020	1.33	119	90-110			QM-05
Sulfate	300	1.0	0.09	mg/L	10.020	312	NR	90-110			QM-02
Matrix Spike (7020101-MS2)		**Source: AAB0020-02**				Prepared: 02/04/17 Analyzed: 02/05/17					
Chloride	13.0	0.25	0.01	mg/L	10.010	2.45	106	90-110			
Fluoride	11.2	0.30	0.004	mg/L	10.020	0.04	111	90-110			QM-05
Sulfate	23.5	1.0	0.09	mg/L	10.020	12.8	107	90-110			
Matrix Spike Dup (7020101-MSD1)		**Source: AAB0005-01**				Prepared: 02/04/17 Analyzed: 02/05/17					
Chloride	237	0.25	0.01	mg/L	10.010	271	NR	90-110	0.9	15	QM-02
Fluoride	13.0	0.30	0.004	mg/L	10.020	1.33	117	90-110	1	15	QM-05
Sulfate	300	1.0	0.09	mg/L	10.020	312	NR	90-110	0.05	15	QM-02

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February 08, 2017

Report No.: AAB0020

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020031 - EPA 3005A											
Blank (7020031-BLK1)						Prepared: 02/02/17 Analyzed: 02/06/17					
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 (7020031-BS1)						Prepared: 02/02/17 Analyzed: 02/06/17					
Antimony	0.109	0.0030	0.0008	mg/L	0.10000		109	80-120			
Arsenic	0.0939	0.0050	0.0016	mg/L	0.10000		94	80-120			
Barium	0.100	0.0100	0.0004	mg/L	0.10000		100	80-120			
Beryllium	0.106	0.0030	0.00008	mg/L	0.10000		106	80-120			
Boron	1.04	0.0400	0.0064	mg/L	1.0000		104	80-120			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Calcium	1.08	0.500	0.0311	mg/L	1.0000		108	80-120			
Chromium	0.0944	0.0100	0.0009	mg/L	0.10000		94	80-120			
Cobalt	0.0926	0.0100	0.0005	mg/L	0.10000		93	80-120			
Copper	0.0923	0.0250	0.0005	mg/L	0.10000		92	80-120			
Lead	0.0998	0.0050	0.0001	mg/L	0.10000		100	80-120			
Molybdenum	0.106	0.0100	0.0017	mg/L	0.10000		106	80-120			
Nickel	0.0923	0.0100	0.0006	mg/L	0.10000		92	80-120			
Selenium	0.0967	0.0100	0.0010	mg/L	0.10000		97	80-120			
Silver	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000		102	80-120			
Vanadium	0.0930	0.0100	0.0071	mg/L	0.10000		93	80-120			
Zinc	0.0947	0.0100	0.0021	mg/L	0.10000		95	80-120			
Lithium	0.109	0.0500	0.0021	mg/L	0.10000		109	80-120			

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February 08, 2017

Report No.: AAB0020

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020031 - EPA 3005A											
Matrix Spike (7020031-MS1)		**Source: AAB0005-02**			Prepared: 02/02/17 Analyzed: 02/06/17						
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	ND	107	75-125			
Arsenic	0.107	0.0050	0.0016	mg/L	0.10000	0.0062	101	75-125			
Barium	0.154	0.0100	0.0004	mg/L	0.10000	0.0445	110	75-125			
Beryllium	0.0874	0.0030	0.00008	mg/L	0.10000	0.0011	86	75-125			
Boron	1.47	0.0400	0.0064	mg/L	1.0000	0.784	68	75-125			QM-02
Cadmium	0.0936	0.0010	0.00007	mg/L	0.10000	ND	94	75-125			
Calcium	157	25.0	1.55	mg/L	1.0000	159	NR	75-125			QM-02
Chromium	0.103	0.0100	0.0009	mg/L	0.10000	0.0015	102	75-125			
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000	0.0111	94	75-125			
Copper	0.0818	0.0250	0.0005	mg/L	0.10000	ND	82	75-125			
Lead	0.0981	0.0050	0.0001	mg/L	0.10000	0.0004	98	75-125			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000	ND	109	75-125			
Nickel	0.141	0.0100	0.0006	mg/L	0.10000	0.0510	90	75-125			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000	0.0046	98	75-125			
Silver	0.0842	0.0100	0.0005	mg/L	0.10000	ND	84	75-125			
Thallium	0.101	0.0010	0.0002	mg/L	0.10000	0.0004	100	75-125			
Vanadium	0.108	0.0100	0.0071	mg/L	0.10000	ND	108	75-125			
Zinc	0.115	0.0100	0.0021	mg/L	0.10000	0.0291	86	75-125			
Lithium	0.102	0.0500	0.0021	mg/L	0.10000	0.0124	90	75-125			
Matrix Spike Dup (7020031-MSD1)		**Source: AAB0005-02**			Prepared: 02/02/17 Analyzed: 02/06/17						
Antimony	0.111	0.0030	0.0008	mg/L	0.10000	ND	111	75-125	3	20	
Arsenic	0.108	0.0050	0.0016	mg/L	0.10000	0.0062	102	75-125	0.7	20	
Barium	0.156	0.0100	0.0004	mg/L	0.10000	0.0445	112	75-125	1	20	
Beryllium	0.0884	0.0030	0.00008	mg/L	0.10000	0.0011	87	75-125	1	20	
Boron	1.49	0.0400	0.0064	mg/L	1.0000	0.784	71	75-125	1	20	QM-02
Cadmium	0.0967	0.0010	0.00007	mg/L	0.10000	ND	97	75-125	3	20	
Calcium	160	25.0	1.55	mg/L	1.0000	159	47	75-125	2	20	QM-02
Chromium	0.101	0.0100	0.0009	mg/L	0.10000	0.0015	100	75-125	2	20	
Cobalt	0.108	0.0100	0.0005	mg/L	0.10000	0.0111	97	75-125	2	20	
Copper	0.0839	0.0250	0.0005	mg/L	0.10000	ND	84	75-125	3	20	
Lead	0.103	0.0050	0.0001	mg/L	0.10000	0.0004	103	75-125	5	20	
Molybdenum	0.113	0.0100	0.0017	mg/L	0.10000	ND	113	75-125	4	20	
Nickel	0.140	0.0100	0.0006	mg/L	0.10000	0.0510	89	75-125	0.6	20	
Selenium	0.102	0.0100	0.0010	mg/L	0.10000	0.0046	97	75-125	1	20	
Silver	0.0860	0.0100	0.0005	mg/L	0.10000	ND	86	75-125	2	20	
Thallium	0.106	0.0010	0.0002	mg/L	0.10000	0.0004	106	75-125	6	20	
Vanadium	0.109	0.0100	0.0071	mg/L	0.10000	ND	109	75-125	0.7	20	
Zinc	0.116	0.0100	0.0021	mg/L	0.10000	0.0291	87	75-125	0.9	20	
Lithium	0.108	0.0500	0.0021	mg/L	0.10000	0.0124	96	75-125	6	20	

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Atlanta GA, 30339

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February 08, 2017

Report No.: AAB0020

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020031 - EPA 3005A											
Post Spike (7020031-PS1)			**Source: AAB0005-02**			Prepared: 02/02/17 Analyzed: 02/06/17					
Antimony	107			ug/L	100.00	0.251	107	80-120			
Arsenic	106			ug/L	100.00	6.23	100	80-120			
Barium	144			ug/L	100.00	44.5	99	80-120			
Beryllium	92.1			ug/L	100.00	1.07	91	80-120			
Boron	1570			ug/L	1000.0	784	78	80-120			QM-02
Cadmium	96.7			ug/L	100.00	0.0292	97	80-120			
Calcium	168000			ug/L	1000.0	159000	844	80-120			QM-02
Chromium	102			ug/L	100.00	1.46	101	80-120			
Cobalt	105			ug/L	100.00	11.1	94	80-120			
Copper	82.9			ug/L	100.00	0.0687	83	80-120			
Lead	101			ug/L	100.00	0.371	101	80-120			
Molybdenum	111			ug/L	100.00	0.775	111	80-120			
Nickel	142			ug/L	100.00	51.0	91	80-120			
Selenium	100			ug/L	100.00	4.64	96	80-120			
Silver	83.1			ug/L	100.00	0.0177	83	80-120			
Thallium	105			ug/L	100.00	0.381	105	80-120			
Vanadium	110			ug/L	100.00	0.647	110	80-120			
Zinc	118			ug/L	100.00	29.1	89	80-120			
Lithium	108			ug/L	100.00	12.4	95	80-120			
Batch 7020113 - EPA 7470A											
Blank (7020113-BLK1)						Prepared & Analyzed: 02/06/17					
Mercury	0.00007	0.00050	0.000041	mg/L							J
LCS (7020113-BS1)						Prepared & Analyzed: 02/06/17					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020113 - EPA 7470A											
Matrix Spike (7020113-MS1)		**Source: AAA0956-04**				Prepared & Analyzed: 02/06/17					
Mercury	0.00234	0.00050	0.000041	mg/L	2.5000E-3	0.00006	91	75-125			
Matrix Spike Dup (7020113-MSD1)		**Source: AAA0956-04**				Prepared & Analyzed: 02/06/17					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	0.00006	92	75-125	0.7	20	
Post Spike (7020113-PS1)		**Source: AAA0956-04**				Prepared & Analyzed: 02/06/17					
Mercury	1.72			ug/L	1.6667	0.0422	101	80-120			

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February 08, 2017

Legend

Definition of Laboratory Terms

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

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

QR-01 RPD was outside acceptance limits due to sample concentrations near or below the reporting limit.

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

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

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

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

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

CHAIN OF CUSTODY RECORD

Pace Analytical®

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

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway BIN B426
Birmingham, AL 35242
205-992-5417

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4, & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)							LAB ID NUMBER
CONTAINER TYPE:								P	P	P							
PRESERVATION:								3	7	3							
01/31/17	14:50	GW		x	GWA-1	4		1	1	2							1
01/31/17	15:45	GW		x	GWA-2	4		1	1	2							2

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

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

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M. Burch MB M. Thomas MT
DATE/TIME: 02/01/2017 / 08:00

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY: I. Vinod (ERM)
DATE/TIME: 2/2/17 2100

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB: Laburman
DATE/TIME: 02/01/17 1100

Packed: No NA
Ice: Yes No NA
Temperature: 1°C Min: 1°C Max:

SAMPLE SHIPPED VIA: UPS FED EX USPS COURIER Pace CLIENT OTHER F.S.
Custody Seal: Intact Broken Not Present (NA)
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AA00920
Entered Into LIMS: MK
Tracking #:

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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LOG-IN CHECKLIST **Printed: 2/2/2017 9:43:58AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 02/01/17 11:00

Work Order: AAB0020
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 2 **#Containers:** 8

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **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:

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

February 27, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 30209607

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on February 02, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30209607

Pennsylvania Certification IDs

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

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

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 30209607

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30209607001	**GWA-1**	Water	01/31/17 14:50	02/02/17 10:05
30209607002	**GWA-2**	Water	01/31/17 15:45	02/02/17 10:05

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30209607

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30209607001	**GWA-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30209607002	**GWA-2**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209607

Sample: GWA-1 **Lab ID: 30209607001** Collected: 01/31/17 14:50 Received: 02/02/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0146 ± 0.112 (0.306) C:94% T:NA**	pCi/L	02/15/17 10:11	13982-63-3	
Radium-228	EPA 9320	**0.0878 ± 0.375 (0.854) C:57% T:84%**	pCi/L	02/23/17 15:06	15262-20-1	
Total Radium	Total Radium Calculation	**0.102 ± 0.487 (1.16)**	pCi/L	02/24/17 16:21	7440-14-4	

Sample: GWA-2 **Lab ID: 30209607002** Collected: 01/31/17 15:45 Received: 02/02/17 10:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.219 ± 0.182 (0.301) C:88% T:NA**	pCi/L	02/15/17 10:11	13982-63-3	
Radium-228	EPA 9320	**0.0719 ± 0.294 (0.675) C:60% T:87%**	pCi/L	02/23/17 15:06	15262-20-1	
Total Radium	Total Radium Calculation	**0.291 ± 0.476 (0.976)**	pCi/L	02/24/17 16:21	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209607

QC Batch: 248965 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30209607001, 30209607002

METHOD BLANK: 1224567 Matrix: Water
Associated Lab Samples: 30209607001, 30209607002

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.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209607

QC Batch: 248825 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30209607001, 30209607002

METHOD BLANK: 1223624 Matrix: Water
Associated Lab Samples: 30209607001, 30209607002

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.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30209607

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

WO# : 30209607

30209607

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAB0020 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 2/24/2017

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

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis Radium 226, 228, Total	LAB USE ONLY
1	GWA-1	G	1/31/2017 14:50	AAB0020-01	GW	2	X	001
2	GWA-2	G	1/31/2017 15:45	AAB0020-02	GW	2	X	002
3								
4								
5								
6								
7								
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Ashley Rose / Pace	2-2-17/1005	EQuIS deliverable required.
2					
3					

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

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

30209607

CHAIN OF CUSTODY RECORD

Pace Analytical®

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

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway BIN B426
Birmingham, AL 35242
205-992-5417

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	Metals State Permit (EPA 6020) Ag, Cu, Ni, V, Zn						LAB ID NUMBER
						CONTAINER TYPE:		P	P	P	P						
						PRESERVATION:		3	7	3	3						
01/31/17	14:50	GW		x	GWA-1	4		x	x	x	x						1
01/31/17	15:45	GW		x	GWA-2	4		x	x	x	x						2

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

*MATRIX CODES:

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M. Burch, M. Thomas — DATE/TIME: 02/01/2017 / 08:00

RELINQUISHED BY: [signature] — DATE/TIME: 02/01/17 10:13

RECEIVED BY: [signature] — DATE/TIME: 2/1/17 1013

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: [signature] — DATE/TIME: 02/01/17 1100

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

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

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

FOR LAB USE ONLY
LAB #: AA00820
Entered into LIMS:
Tracking #:

2017 01 31 Hammond COCs.xlsx

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA Project # 30209607

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

Tracking #: 6812 5102 0454

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

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: AMR 2-2-17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation. All containers needing preservation are found to be in compliance with EPA recommendation.	X			15. pH<2
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed AMR Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:		X		17.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed AMR Date: 2-2-17

Client Notification/ Resolution:

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

Comments/ Resolution: _____

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

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

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

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	2/15/2017
Worklist:	33968
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1224567
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

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS33968	LCSD33968
Count Date:	2/23/2017	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.228	
Volume Used (mL):	0.30	
Aliquot Volume (L, g, F):	0.802	
Target Conc. (pCi/L, g, F):	9.439	
Uncertainty (Calculated):	0.680	
Result (pCi/L, g, F):	8.775	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.867	
Numerical Performance Indicator:	-1.18	
Percent Recovery:	92.97%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

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

Duplicate Sample Assessment		
Sample I.D.:	30209606003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30209606003DUP	
Sample Result (pCi/L, g, F):	0.702	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.483	
Sample Duplicate Result (pCi/L, g, F):	1.313	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.568	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.606	30209606003
Duplicate RPD:	60.66%	30209606003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

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

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

Comments:

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

2/24/17

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	2/14/2017
Worklist:	33940
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1223624
MB concentration:	0.091
M/B Counting Uncertainty:	0.153
MB MDC:	0.342
MB Numerical Performance Indicator:	1.17
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS33940	LCSD33940
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):	0.506	
Target Conc. (pCi/L, g, F):	8.835	
Uncertainty (Calculated):	0.416	
Result (pCi/L, g, F):	7.810	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.845	
Numerical Performance Indicator:	-2.13	
Percent Recovery:	88.39%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	30209606003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30209606003DUP	
Sample Result (pCi/L, g, F):	0.326	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.256	
Sample Duplicate Result (pCi/L, g, F):	0.234	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.182	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	0.569	30209606003
Duplicate RPD:	32.60%	30209606003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

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

PACE ANALYTICAL SERVICES, LLC.

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

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAB0102
February 13, 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:

Signature

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

February 13, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-3	AAB0102-01	Ground Water	02/01/17 12:57	02/02/17 13:15
GWA-4	AAB0102-02	Ground Water	02/01/17 13:57	02/02/17 13:15
GWA-11	AAB0102-03	Ground Water	02/01/17 15:10	02/02/17 13:15
GWC-5	AAB0102-04	Ground Water	02/01/17 13:05	02/02/17 13:15
GWC-6	AAB0102-05	Ground Water	02/01/17 14:38	02/02/17 13:15
Dup-1	AAB0102-06	Ground Water	02/01/17 00:00	02/02/17 13:15

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

February 13, 2017

Report No.: AAB0102
Client ID: GWA-3
Date/Time Sampled: 2/1/2017 12:57:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0102-01
Date/Time Received: 2/2/2017 1:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	615	25	10	mg/L	SM 2540 C		1	02/06/17 14:35	02/06/17 14:35	7020121	JPT
Inorganic Anions											
Chloride	3.7	0.25	0.01	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 18:06	7020131	RLC
Fluoride	0.35	0.30	0.004	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 18:06	7020131	RLC
Sulfate	190	10	0.92	mg/L	EPA 300.0		10	02/06/17 10:35	02/08/17 02:07	7020131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Barium	0.121	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Boron	0.143	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Calcium	85.0	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 09:40	02/08/17 17:19	7020146	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Lithium	0.0196	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 17:13	7020146	CSW
Mercury	0.00005	0.00050	0.000041	mg/L	EPA 7470A	J	1	02/07/17 10:30	02/07/17 17:30	7020153	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102
Client ID: GWA-4
Date/Time Sampled: 2/1/2017 1:57:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0102-02
Date/Time Received: 2/2/2017 1:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	638	25	10	mg/L	SM 2540 C		1	02/06/17 14:35	02/06/17 14:35	7020121	JPT
Inorganic Anions											
Chloride	8.5	0.25	0.01	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 18:48	7020131	RLC
Fluoride	0.48	0.30	0.004	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 18:48	7020131	RLC
Sulfate	200	20	1.8	mg/L	EPA 300.0		20	02/06/17 10:35	02/09/17 10:32	7020131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Barium	0.0482	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Boron	0.0949	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Calcium	92.8	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 09:40	02/08/17 17:31	7020146	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Cobalt	0.0013	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Lithium	0.0148	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 17:25	7020146	CSW
Mercury	0.00012	0.00050	0.000041	mg/L	EPA 7470A	J	1	02/07/17 10:30	02/07/17 17:32	7020153	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102
Client ID: GWA-11
Date/Time Sampled: 2/1/2017 3:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0102-03
Date/Time Received: 2/2/2017 1:15:00PM

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	02/06/17 14:35	02/06/17 14:35	7020121	JPT
Inorganic Anions											
Chloride	2.1	0.25	0.01	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 19:08	7020131	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 19:08	7020131	RLC
Sulfate	13	1.0	0.09	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 19:08	7020131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Barium	0.0332	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Boron	0.0365	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Calcium	18.1	5.00	0.311	mg/L	EPA 6020B		10	02/07/17 09:40	02/09/17 16:54	7020146	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Cobalt	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Lithium	0.0102	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 17:51	7020146	CSW
Mercury	0.00016	0.00050	0.000041	mg/L	EPA 7470A	J	1	02/07/17 10:30	02/07/17 17:34	7020153	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102
Client ID: GWC-5
Date/Time Sampled: 2/1/2017 1:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0102-04
Date/Time Received: 2/2/2017 1:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	511	25	10	mg/L	SM 2540 C		1	02/06/17 14:35	02/06/17 14:35	7020121	JPT
Inorganic Anions											
Chloride	3.8	0.25	0.01	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 19:29	7020131	RLC
Fluoride	0.33	0.30	0.004	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 19:29	7020131	RLC
Sulfate	150	10	0.92	mg/L	EPA 300.0		10	02/06/17 10:35	02/08/17 02:50	7020131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Barium	0.0972	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Boron	0.0516	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Calcium	82.5	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 09:40	02/08/17 18:08	7020146	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Lithium	0.0305	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 18:03	7020146	CSW
Mercury	0.00016	0.00050	0.000041	mg/L	EPA 7470A	J	1	02/07/17 10:30	02/07/17 17:37	7020153	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102
Client ID: GWC-6
Date/Time Sampled: 2/1/2017 2:38:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0102-05
Date/Time Received: 2/2/2017 1:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	354	25	10	mg/L	SM 2540 C		1	02/06/17 14:35	02/06/17 14:35	7020121	JPT
Inorganic Anions											
Chloride	2.2	0.25	0.01	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 19:49	7020131	RLC
Fluoride	0.24	0.30	0.004	mg/L	EPA 300.0	J	1	02/06/17 10:35	02/06/17 19:49	7020131	RLC
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	02/06/17 10:35	02/08/17 03:12	7020131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Barium	0.163	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Boron	0.0381	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Calcium	59.6	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 09:40	02/08/17 18:20	7020146	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Lithium	0.0178	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 18:14	7020146	CSW
Mercury	0.00014	0.00050	0.000041	mg/L	EPA 7470A	J	1	02/07/17 10:30	02/07/17 17:39	7020153	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102
Client ID: Dup-1
Date/Time Sampled: 2/1/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0102-06
Date/Time Received: 2/2/2017 1:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	402	25	10	mg/L	SM 2540 C		1	02/06/17 14:35	02/06/17 14:35	7020121	JPT
Inorganic Anions											
Chloride	2.2	0.25	0.01	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 20:10	7020131	RLC
Fluoride	0.24	0.30	0.004	mg/L	EPA 300.0	J	1	02/06/17 10:35	02/06/17 20:10	7020131	RLC
Sulfate	130	10	0.92	mg/L	EPA 300.0		10	02/06/17 10:35	02/08/17 03:34	7020131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Barium	0.164	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Boron	0.0375	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Calcium	62.0	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 09:40	02/08/17 18:31	7020146	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Lithium	0.0184	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 18:25	7020146	CSW
Mercury	0.00034	0.00050	0.000041	mg/L	EPA 7470A	J	1	02/07/17 10:30	02/07/17 17:42	7020153	MTC

PACE ANALYTICAL SERVICES, LLC.

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Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020121 - SM 2540 C											
Blank (7020121-BLK1)						Prepared & Analyzed: 02/06/17					
Total Dissolved Solids	10	25	10	mg/L							J
LCS (7020121-BS1)						Prepared & Analyzed: 02/06/17					
Total Dissolved Solids	434	25	10	mg/L	400.00		108	84-108			
Duplicate (7020121-DUP1)		**Source: AAB0084-03**				Prepared & Analyzed: 02/06/17					
Total Dissolved Solids	74	25	10	mg/L		31			82	10	QR-03
Duplicate (7020121-DUP2)		**Source: AAB0084-05**				Prepared & Analyzed: 02/06/17					
Total Dissolved Solids	151	25	10	mg/L		163			8	10	
Batch 7020178 - SM 2540 C											
Blank (7020178-BLK1)						Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7020178-BS1)						Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	417	25	10	mg/L	400.00		104	84-108			
Duplicate (7020178-DUP1)		**Source: AAB0084-03RE1**				Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	37	25	10	mg/L		30			21	10	QR-03
Duplicate (7020178-DUP2)		**Source: AAB0084-05RE1**				Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	136	25	10	mg/L		144			6	10	

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Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020131 - EPA 300.0											
Blank (7020131-BLK1)						Prepared & Analyzed: 02/06/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7020131-BS1)						Prepared & Analyzed: 02/06/17					
Chloride	10.8	0.25	0.01	mg/L	10.010		108	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 (7020131-MS1)			**Source: AAB0084-02RE1**			Prepared & Analyzed: 02/06/17					
Chloride	11.8	0.25	0.01	mg/L	10.010	1.43	103	90-110			
Fluoride	10.6	0.30	0.004	mg/L	10.020	ND	105	90-110			
Sulfate	12.8	1.0	0.09	mg/L	10.020	2.61	102	90-110			
Matrix Spike (7020131-MS2)			**Source: AAB0102-02**			Prepared & Analyzed: 02/06/17					
Chloride	14.3	0.25	0.01	mg/L	10.010	8.49	58	90-110			QM-02
Fluoride	11.4	0.30	0.004	mg/L	10.020	0.48	109	90-110			
Sulfate	147	1.0	0.09	mg/L	10.020	160	NR	90-110			QM-02
Matrix Spike Dup (7020131-MSD1)			**Source: AAB0084-02RE1**			Prepared & Analyzed: 02/06/17					
Chloride	11.8	0.25	0.01	mg/L	10.010	1.43	103	90-110	0	15	
Fluoride	10.6	0.30	0.004	mg/L	10.020	ND	106	90-110	0.7	15	
Sulfate	12.8	1.0	0.09	mg/L	10.020	2.61	102	90-110	0.04	15	

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

February 13, 2017

Report No.: AAB0102

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020146 - EPA 3005A											
Blank (7020146-BLK1)						Prepared: 02/07/17 Analyzed: 02/08/17					
Antimony	0.0014	0.0030	0.0008	mg/L							J
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	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 (7020146-BS1)						Prepared: 02/07/17 Analyzed: 02/08/17					
Antimony	0.114	0.0030	0.0008	mg/L	0.10000		114	80-120			
Arsenic	0.0994	0.0050	0.0016	mg/L	0.10000		99	80-120			
Barium	0.105	0.0100	0.0004	mg/L	0.10000		105	80-120			
Beryllium	0.0998	0.0030	0.00008	mg/L	0.10000		100	80-120			
Boron	0.969	0.0400	0.0064	mg/L	1.0000		97	80-120			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000		105	80-120			
Calcium	1.03	0.500	0.0311	mg/L	1.0000		103	80-120			
Chromium	0.0989	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.0954	0.0100	0.0005	mg/L	0.10000		95	80-120			
Copper	0.0983	0.0250	0.0005	mg/L	0.10000		98	80-120			
Lead	0.104	0.0050	0.0001	mg/L	0.10000		104	80-120			
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000		105	80-120			
Nickel	0.0995	0.0100	0.0006	mg/L	0.10000		100	80-120			
Selenium	0.101	0.0100	0.0010	mg/L	0.10000		101	80-120			
Silver	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.103	0.0010	0.0002	mg/L	0.10000		103	80-120			
Vanadium	0.0994	0.0100	0.0071	mg/L	0.10000		99	80-120			
Zinc	0.102	0.0100	0.0021	mg/L	0.10000		102	80-120			
Lithium	0.0968	0.0500	0.0021	mg/L	0.10000		97	80-120			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020146 - EPA 3005A											
Matrix Spike (7020146-MS1)		**Source: AAB0154-01**			Prepared: 02/07/17 Analyzed: 02/08/17						
Antimony	0.114	0.0030	0.0008	mg/L	0.10000	ND	114	75-125			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125			
Barium	0.254	0.0100	0.0004	mg/L	0.10000	0.123	131	75-125			QM-02
Beryllium	0.0961	0.0030	0.00008	mg/L	0.10000	ND	96	75-125			
Boron	0.972	0.0400	0.0064	mg/L	1.0000	0.0171	95	75-125			
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	54.5	25.0	1.55	mg/L	1.0000	49.0	553	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	0.103	0.0250	0.0005	mg/L	0.10000	0.0008	103	75-125			
Lead	0.103	0.0050	0.0001	mg/L	0.10000	ND	103	75-125			
Molybdenum	0.112	0.0100	0.0017	mg/L	0.10000	ND	112	75-125			
Nickel	0.104	0.0100	0.0006	mg/L	0.10000	ND	104	75-125			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000	ND	102	75-125			
Silver	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Thallium	0.103	0.0010	0.0002	mg/L	0.10000	ND	103	75-125			
Vanadium	0.109	0.0100	0.0071	mg/L	0.10000	ND	109	75-125			
Zinc	0.109	0.0100	0.0021	mg/L	0.10000	ND	109	75-125			
Lithium	0.113	0.0500	0.0021	mg/L	0.10000	0.0109	102	75-125			
Matrix Spike Dup (7020146-MSD1)		**Source: AAB0154-01**			Prepared: 02/07/17 Analyzed: 02/08/17						
Antimony	0.114	0.0030	0.0008	mg/L	0.10000	ND	114	75-125	0.4	20	
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000	ND	104	75-125	2	20	
Barium	0.250	0.0100	0.0004	mg/L	0.10000	0.123	127	75-125	2	20	QM-02
Beryllium	0.0899	0.0030	0.00008	mg/L	0.10000	ND	90	75-125	7	20	
Boron	0.922	0.0400	0.0064	mg/L	1.0000	0.0171	91	75-125	5	20	
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125	0.1	20	
Calcium	51.0	25.0	1.55	mg/L	1.0000	49.0	207	75-125	7	20	QM-02
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125	1	20	
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125	0.02	20	
Copper	0.0998	0.0250	0.0005	mg/L	0.10000	0.0008	99	75-125	4	20	
Lead	0.102	0.0050	0.0001	mg/L	0.10000	ND	102	75-125	0.7	20	
Molybdenum	0.110	0.0100	0.0017	mg/L	0.10000	ND	110	75-125	2	20	
Nickel	0.103	0.0100	0.0006	mg/L	0.10000	ND	103	75-125	0.6	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	0.2	20	
Thallium	0.101	0.0010	0.0002	mg/L	0.10000	ND	101	75-125	2	20	
Vanadium	0.104	0.0100	0.0071	mg/L	0.10000	ND	104	75-125	5	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125	3	20	
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0109	92	75-125	9	20	

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020146 - EPA 3005A											
Post Spike (7020146-PS1)			**Source: AAB0154-01**			Prepared: 02/07/17 Analyzed: 02/08/17					
Antimony	98.7			ug/L	100.00	0.0118	99	80-120			
Arsenic	105			ug/L	100.00	-0.0551	105	80-120			
Barium	246			ug/L	100.00	123	123	80-120			QM-02
Beryllium	95.0			ug/L	100.00	-0.0039	95	80-120			
Boron	954			ug/L	1000.0	17.1	94	80-120			
Cadmium	106			ug/L	100.00	0.0668	106	80-120			
Calcium	53400			ug/L	1000.0	49000	441	80-120			QM-02
Chromium	104			ug/L	100.00	0.0456	104	80-120			
Cobalt	99.9			ug/L	100.00	0.0217	100	80-120			
Copper	101			ug/L	100.00	0.809	100	80-120			
Lead	106			ug/L	100.00	0.0057	106	80-120			
Molybdenum	109			ug/L	100.00	0.113	109	80-120			
Nickel	102			ug/L	100.00	0.239	101	80-120			
Selenium	107			ug/L	100.00	0.116	107	80-120			
Silver	100			ug/L	100.00	0.0014	100	80-120			
Thallium	104			ug/L	100.00	-0.0051	104	80-120			
Vanadium	105			ug/L	100.00	-1.29	105	80-120			
Zinc	103			ug/L	100.00	0.691	103	80-120			
Lithium	106			ug/L	100.00	10.9	95	80-120			
Batch 7020153 - EPA 7470A											
Blank (7020153-BLK1)						Prepared & Analyzed: 02/07/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7020153-BS1)						Prepared & Analyzed: 02/07/17					
Mercury	0.00254	0.00050	0.000041	mg/L	2.5000E-3		102	80-120			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0102

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020153 - EPA 7470A											
Matrix Spike (7020153-MS1)		**Source: AAB0021-04**				Prepared & Analyzed: 02/07/17					
Mercury	0.00253	0.00050	0.000041	mg/L	2.5000E-3	ND	101	75-125			
Matrix Spike Dup (7020153-MSD1)		**Source: AAB0021-04**				Prepared & Analyzed: 02/07/17					
Mercury	0.00251	0.00050	0.000041	mg/L	2.5000E-3	ND	100	75-125	0.7	20	
Post Spike (7020153-PS1)		**Source: AAB0021-04**				Prepared & Analyzed: 02/07/17					
Mercury	1.83			ug/L	1.6667	-0.0131	110	80-120			

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 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

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway BIN B426
Birmingham, AL 35242
205-992-5417

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

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)							LAB ID NUMBER
CONTAINER TYPE:								P	P	P							
PRESERVATION:								3	7	3							
02/01/17	12:57	GW		x	GWA-3	4		1	1	2							1
02/01/17	13:57	GW		x	GWA-4	4		1	1	2							2
02/01/17	15:10	GW		x	GWA-11	4		1	1	2							3
02/01/17	13:05	GW		x	GWC-5	4		1	1	2							4
02/01/17	14:38	GW		x	GWC-6	4		1	1	2							5
02/01/17	--	GW		x	DUP-1	4		1	1	2							6

CONTAINER TYPE / PRESERVATION

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

*MATRIX CODES:

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M. Burch MB W.Virgo WV
DATE/TIME: 2/1/2017 / 21:00
RELINQUISHED BY: W.V. W.V. (FRM)
DATE/TIME: 2/1/17 2100

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

RECEIVED BY LAB: Charles Hunter
DATE/TIME: 2/2/17 1315
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
Temperature: 2°C Min: 2°C Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:
Iced: Yes No NA
Checked: No NA

FOR LAB USE ONLY
LAB #: AAB0102
Entered into LIMS: GH
Tracking #:

PACE ANALYTICAL SERVICES, LLC.

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

LOG-IN CHECKLIST **Printed: 2/3/2017 10:25:47AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 02/02/17 13:15

Work Order: AAB0102
Logged In By: Charles Hawks

OBSERVATIONS

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

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

CHECKLIST ITEMS

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

Comments:

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

February 27, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 30209700

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on February 03, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30209700

Pennsylvania Certification IDs

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

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

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 30209700

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30209700001	**GWA-3**	Water	02/01/17 12:57	02/03/17 09:45
30209700002	**GWA-4**	Water	02/01/17 13:57	02/03/17 09:45
30209700003	**GWA-11**	Water	02/01/17 15:10	02/03/17 09:45
30209700004	**GWC-5**	Water	02/01/17 13:05	02/03/17 09:45
30209700005	**GWC-6**	Water	02/01/17 14:38	02/03/17 09:45
30209700006	**Dup-1**	Water	02/01/17 00:00	02/03/17 09:45

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

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30209700

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30209700001	**GWA-3**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30209700002	**GWA-4**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30209700003	**GWA-11**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30209700004	**GWC-5**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30209700005	**GWC-6**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30209700006	**Dup-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209700

Sample: GWA-3 **Lab ID: 30209700001** Collected: 02/01/17 12:57 Received: 02/03/17 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.278 ± 0.192 (0.290) C:90% T:NA**	pCi/L	02/15/17 14:56	13982-63-3	
Radium-228	EPA 9320	**0.370 ± 0.532 (1.15) C:60% T:83%**	pCi/L	02/25/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.648 ± 0.724 (1.44)**	pCi/L	02/27/17 17:03	7440-14-4	

Sample: GWA-4 **Lab ID: 30209700002** Collected: 02/01/17 13:57 Received: 02/03/17 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0279 ± 0.112 (0.292) C:87% T:NA**	pCi/L	02/15/17 14:56	13982-63-3	
Radium-228	EPA 9320	**0.913 ± 0.577 (1.07) C:49% T:78%**	pCi/L	02/25/17 15:55	15262-20-1	
Total Radium	Total Radium Calculation	**0.941 ± 0.689 (1.36)**	pCi/L	02/27/17 17:03	7440-14-4	

Sample: GWA-11 **Lab ID: 30209700003** Collected: 02/01/17 15:10 Received: 02/03/17 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0417 ± 0.111 (0.273) C:92% T:NA**	pCi/L	02/15/17 14:56	13982-63-3	
Radium-228	EPA 9320	**0.652 ± 0.440 (0.829) C:53% T:89%**	pCi/L	02/25/17 15:55	15262-20-1	
Total Radium	Total Radium Calculation	**0.694 ± 0.551 (1.10)**	pCi/L	02/27/17 17:03	7440-14-4	

Sample: GWC-5 **Lab ID: 30209700004** Collected: 02/01/17 13:05 Received: 02/03/17 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.193 ± 0.209 (0.425) C:85% T:NA**	pCi/L	02/15/17 14:56	13982-63-3	
Radium-228	EPA 9320	**1.01 ± 0.525 (0.906) C:50% T:86%**	pCi/L	02/25/17 15:55	15262-20-1	
Total Radium	Total Radium Calculation	**1.20 ± 0.734 (1.33)**	pCi/L	02/27/17 17:03	7440-14-4	

Sample: GWC-6 **Lab ID: 30209700005** Collected: 02/01/17 14:38 Received: 02/03/17 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.100 ± 0.135 (0.279) C:92% T:NA**	pCi/L	02/15/17 14:56	13982-63-3	
Radium-228	EPA 9320	**1.04 ± 0.552 (0.972) C:55% T:79%**	pCi/L	02/25/17 15:55	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209700

Sample: GWC-6 **Lab ID: 30209700005** Collected: 02/01/17 14:38 Received: 02/03/17 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**1.14 ± 0.687 (1.25)**	pCi/L	02/27/17 17:03	7440-14-4	

Sample: Dup-1 **Lab ID: 30209700006** Collected: 02/01/17 00:00 Received: 02/03/17 09:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.106 ± 0.140 (0.289) C:95% T:NA**	pCi/L	02/15/17 14:56	13982-63-3	
Radium-228	EPA 9320	**0.357 ± 0.394 (0.818) C:55% T:83%**	pCi/L	02/25/17 15:55	15262-20-1	
Total Radium	Total Radium Calculation	**0.463 ± 0.534 (1.11)**	pCi/L	02/27/17 17:03	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209700

QC Batch: 248966 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30209700001, 30209700002, 30209700003, 30209700004, 30209700005, 30209700006

METHOD BLANK: 1224568 Matrix: Water
Associated Lab Samples: 30209700001, 30209700002, 30209700003, 30209700004, 30209700005, 30209700006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.973 ± 0.433 (0.716) C:90% T:70%	pCi/L	02/25/17 15:54	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209700

QC Batch: 248826 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30209700001, 30209700002, 30209700003, 30209700004, 30209700005, 30209700006

METHOD BLANK: 1223625 Matrix: Water
Associated Lab Samples: 30209700001, 30209700002, 30209700003, 30209700004, 30209700005, 30209700006

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.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30209700

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

WO#:30209700

Chain of Custody

30209700

Pace Analytical
www.pacelabs.com

Workorder: AAB0102 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 2/27/2017

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

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWA-3	G	2/1/2017 12:57	AAB0102-01	GW	2	X	001
2	GWA-4	G	2/1/2017 13:57	AAB0102-02	GW	2	X	002
3	GWA-11	G	2/1/2017 15:10	AAB0102-03	GW	2	X	003
4	GWC-5	G	2/1/2017 13:05	AAB0102-04	GW	2	X	004
5	GWC-6	G	2/1/2017 14:38	AAB0102-05	GW	2	X	005
6	Dup-1	G	2/1/2017 0:00	AAB0102-06	GW	2	X	006
7								
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Ashley Rose/Pace	2-3-17/0945	EQuIS deliverable required.
2					
3					

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

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

30209700

CHAIN OF CUSTODY RECORD

Pace Analytical

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

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 42 Inverness Center Parkway BIN B426, Birmingham, AL 35242, 205-992-5417

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)						LAB ID NUMBER
					CONTAINER TYPE:			P	P	P						
					PRESERVATION			3	7	3						
02/01/17	12:57	GW		x	GWA-3	4		1	1	2						1
02/01/17	13:57	GW		x	GWA-4	4		1	1	2						2
02/01/17	15:10	GW		x	GWA-11	4		1	1	2						3
02/01/17	13:05	GW		x	GWC-5	4		1	1	2						4
02/01/17	14:38	GW		x	GWC-6	4		1	1	2						5
02/01/17	--	GW		x	DUP-1	4		1	1	2						6

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

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

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M. Burch MB W.Virgo WV | DATE/TIME: 2/1/2017 / 21:00

RELINQUISHED BY: [signature] (ERM) | DATE/TIME: 2/1/17 2100

RECEIVED BY: | DATE/TIME:

RELINQUISHED BY: | DATE/TIME:

RECEIVED BY LAB: [signature] | DATE/TIME: 2/2/17 1315

pH checked: Yes No NA | Ice: Yes No NA | Temperature: 2°C 2°C

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

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

FOR LAB USE ONLY
LAB #: AAB0102
Entered into LIMS: CH
Tracking #:

2017 02 01 Hammond COCs.xlsx

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA Project # 30209700

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

Tracking #: 6812 5102 0888

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

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: AMR 2-3-17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used: -Pace Containers Used:	X			10.
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation. All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenolics	X			15. pH<2
				Initial when completed AMR Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:		X		17.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: AMR Date: 2-3-17

Client Notification/ Resolution:

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

Comments/ Resolution: _____

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

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

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

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	LAL
Date:	2/14/2017
Worklist:	33941
Matrix:	DW

Method Blank Assessment

MB Sample ID	1223625
MB concentration:	0.009
M/B Counting Uncertainty:	0.095
MB MDC:	0.270
MB Numerical Performance Indicator:	0.19
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	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	

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	30209269003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30209269003DUP	
Sample Result (pCi/L, g, F):	0.057	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.117	
Sample Duplicate Result (pCi/L, g, F):	0.129	
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***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

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

2/27/17

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	2/14/2017
Worklist:	33969
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1224568
MB concentration:	0.973
M/B Counting Uncertainty:	0.396
MB MDC:	0.716
MB Numerical Performance Indicator:	4.82
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS33969	LCSD33969
Count Date:	2/25/2017	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.210	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.801	
Target Conc. (pCi/L, g, F):	6.295	
Uncertainty (Calculated):	0.453	
Result (pCi/L, g, F):	6.275	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.938	
Numerical Performance Indicator:	-0.04	
Percent Recovery:	99.67%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

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

Duplicate Sample Assessment		
Sample I.D.:	30209269003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30209269003DUP	
Sample Result (pCi/L, g, F):	0.785	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.464	
Sample Duplicate Result (pCi/L, g, F):	1.618	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.530	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-2.316	30209269003
Duplicate RPD:	69.30%	30209269003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

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

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

Comments:

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

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

PACE ANALYTICAL SERVICES, LLC.

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

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAB0145
February 13, 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:

Signature

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

February 13, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-7	AAB0145-01	Ground Water	02/02/17 10:00	02/03/17 11:30
GWC-8	AAB0145-02	Ground Water	02/02/17 11:40	02/03/17 11:30
GWC-9	AAB0145-03	Ground Water	02/02/17 13:10	02/03/17 11:30
GWC-10	AAB0145-04	Ground Water	02/02/17 10:00	02/03/17 11:30
GWC-18	AAB0145-05	Ground Water	02/02/17 14:55	02/03/17 11:30
GWC-19	AAB0145-06	Ground Water	02/02/17 12:01	02/03/17 11:30
GWC-21	AAB0145-07	Ground Water	02/02/17 13:48	02/03/17 11:30
GWC-22	AAB0145-08	Ground Water	02/02/17 15:11	02/03/17 11:30
Dup-2	AAB0145-09	Ground Water	02/02/17 00:00	02/03/17 11:30
FB-1	AAB0145-10	Water	02/02/17 14:10	02/03/17 11:30
FERB-1	AAB0145-11	Water	02/02/17 14:15	02/03/17 11:30
FB-2	AAB0145-12	Water	02/02/17 14:35	02/03/17 11:30
FERB-2	AAB0145-13	Water	02/02/17 14:40	02/03/17 11:30

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145
Client ID: GWC-7
Date/Time Sampled: 2/2/2017 10:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0145-01
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	236	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 02:42	7020222	RLC
Fluoride	0.30	0.30	0.004	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 02:42	7020222	RLC
Sulfate	71	5.0	0.46	mg/L	EPA 300.0		5	02/08/17 19:29	02/12/17 20:21	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Arsenic	0.0020	0.0050	0.0016	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Barium	0.170	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Boron	0.0534	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Calcium	54.4	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 14:00	02/08/17 21:38	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Cobalt	0.0113	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Lead	0.0003	0.0050	0.0001	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Lithium	0.0093	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 21:32	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:13	7020191	MTC

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February 13, 2017

Report No.: AAB0145
Client ID: GWC-8
Date/Time Sampled: 2/2/2017 11:40:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0145-02
Date/Time Received: 2/3/2017 11:30:00AM

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	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 03:04	7020222	RLC
Fluoride	0.10	0.30	0.004	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 03:04	7020222	RLC
Sulfate	51	1.0	0.09	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 03:04	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Barium	0.0960	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Boron	0.0238	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Cadmium	0.00008	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Calcium	56.5	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 14:00	02/08/17 22:01	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Lithium	0.0086	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 21:55	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:20	7020191	MTC

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February 13, 2017

Report No.: AAB0145
Client ID: GWC-9
Date/Time Sampled: 2/2/2017 1:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0145-03
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	209	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 03:27	7020222	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 03:27	7020222	RLC
Sulfate	76	5.0	0.46	mg/L	EPA 300.0		5	02/08/17 19:29	02/12/17 20:41	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Barium	0.0656	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Boron	0.0151	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Cadmium	0.00008	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Calcium	34.3	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 14:00	02/08/17 22:12	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Lithium	0.0161	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:07	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:22	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

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February 13, 2017

Report No.: AAB0145
Client ID: GWC-10
Date/Time Sampled: 2/2/2017 10:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0145-04
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	160	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	1.8	0.25	0.01	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 03:49	7020222	RLC
Fluoride	0.07	0.30	0.004	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 03:49	7020222	RLC
Sulfate	11	1.0	0.09	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 03:49	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Barium	0.147	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Boron	0.0334	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Cadmium	0.00009	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Calcium	38.1	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 14:00	02/08/17 22:24	7020148	CSW
Chromium	0.0010	0.0100	0.0009	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Lithium	0.0092	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:18	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:25	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

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February 13, 2017

Report No.: AAB0145
Client ID: GWC-18
Date/Time Sampled: 2/2/2017 2:55:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0145-05
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	191	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 04:11	7020222	RLC
Fluoride	0.17	0.30	0.004	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 04:11	7020222	RLC
Sulfate	13	1.0	0.09	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 04:11	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Barium	0.0813	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Boron	0.132	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Cadmium	0.00008	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Calcium	41.5	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 14:00	02/08/17 22:35	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Lithium	0.0149	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:30	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:27	7020191	MTC

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February 13, 2017

Report No.: AAB0145
Client ID: GWC-19
Date/Time Sampled: 2/2/2017 12:01:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0145-06
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	220	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	2.3	0.25	0.01	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 04:34	7020222	RLC
Fluoride	0.10	0.30	0.004	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 04:34	7020222	RLC
Sulfate	14	1.0	0.09	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 04:34	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Barium	0.140	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Boron	0.187	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Calcium	42.4	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 14:00	02/08/17 22:47	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Lithium	0.0175	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 22:41	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:29	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145
Client ID: GWC-21
Date/Time Sampled: 2/2/2017 1:48:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0145-07
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	138	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	3.4	0.25	0.01	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 05:41	7020222	RLC
Fluoride	0.11	0.30	0.004	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 05:41	7020222	RLC
Sulfate	52	5.0	0.46	mg/L	EPA 300.0		5	02/08/17 19:29	02/12/17 21:02	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Barium	0.0783	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Boron	0.0318	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Calcium	37.4	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 14:00	02/08/17 23:10	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Molybdenum	0.0023	0.0100	0.0017	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Selenium	0.0017	0.0100	0.0010	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:04	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:32	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145
Client ID: GWC-22
Date/Time Sampled: 2/2/2017 3:11:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0145-08
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	211	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	1.8	0.25	0.01	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 06:03	7020222	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 06:03	7020222	RLC
Sulfate	9.9	1.0	0.09	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 06:03	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Barium	0.0939	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Boron	0.0729	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Calcium	49.9	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 14:00	02/08/17 23:21	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Lithium	0.0150	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 23:15	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:34	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145
Client ID: Dup-2
Date/Time Sampled: 2/2/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0145-09
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	211	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	1.3	0.25	0.01	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 07:55	7020222	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 07:55	7020222	RLC
Sulfate	72	5.0	0.46	mg/L	EPA 300.0		5	02/08/17 19:29	02/12/17 21:23	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Barium	0.0617	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Boron	0.0144	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Calcium	32.4	2.50	0.155	mg/L	EPA 6020B		5	02/07/17 14:00	02/08/17 00:13	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Lithium	0.0152	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 23:27	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:37	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145
Client ID: FB-1
Date/Time Sampled: 2/2/2017 2:10:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAB0145-10
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 08:39	7020222	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 08:39	7020222	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 08:39	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:38	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:39	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145
Client ID: FERB-1
Date/Time Sampled: 2/2/2017 2:15:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAB0145-11
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	11	25	10	mg/L	SM 2540 C	J	1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 09:02	7020222	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 09:02	7020222	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 09:02	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Cadmium	0.00009	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:44	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:41	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145
Client ID: FB-2
Date/Time Sampled: 2/2/2017 2:35:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAB0145-12
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 09:24	7020222	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 09:24	7020222	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 09:24	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Cadmium	0.00008	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:50	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:48	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145
Client ID: FERB-2
Date/Time Sampled: 2/2/2017 2:40:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAB0145-13
Date/Time Received: 2/3/2017 11:30:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	02/08/17 19:29	02/09/17 09:46	7020222	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 09:46	7020222	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	02/08/17 19:29	02/09/17 09:46	7020222	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	02/07/17 14:00	02/08/17 23:55	7020148	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:51	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020163 - SM 2540 C											
Blank (7020163-BLK1)						Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7020163-BS1)						Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	385	25	10	mg/L	400.00		96	84-108			
Duplicate (7020163-DUP1)		**Source: AAB0145-01**				Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	239	25	10	mg/L		236			1	10	
Duplicate (7020163-DUP2)		**Source: AAB0145-12**				Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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February 13, 2017

Report No.: AAB0145

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020222 - EPA 300.0											
Blank (7020222-BLK1)						Prepared: 02/08/17 Analyzed: 02/09/17					
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 (7020222-BS1)						Prepared: 02/08/17 Analyzed: 02/09/17					
Chloride	10.8	0.25	0.01	mg/L	10.010		108	90-110			
Fluoride	10.9	0.30	0.004	mg/L	10.020		109	90-110			
Sulfate	10.8	1.0	0.09	mg/L	10.020		108	90-110			
Matrix Spike (7020222-MS1)			**Source: AAB0145-06**			Prepared: 02/08/17 Analyzed: 02/09/17					
Chloride	12.7	0.25	0.01	mg/L	10.010	2.27	104	90-110			
Fluoride	10.9	0.30	0.004	mg/L	10.020	0.10	108	90-110			
Sulfate	23.6	1.0	0.09	mg/L	10.020	14.3	92	90-110			
Matrix Spike (7020222-MS2)			**Source: AAB0145-09**			Prepared: 02/08/17 Analyzed: 02/09/17					
Chloride	11.9	0.25	0.01	mg/L	10.010	1.34	106	90-110			
Fluoride	11.1	0.30	0.004	mg/L	10.020	0.05	110	90-110			
Sulfate	72.1	1.0	0.09	mg/L	10.020	69.2	29	90-110			QM-02
Matrix Spike Dup (7020222-MSD1)			**Source: AAB0145-06**			Prepared: 02/08/17 Analyzed: 02/09/17					
Chloride	12.7	0.25	0.01	mg/L	10.010	2.27	104	90-110	0.09	15	
Fluoride	11.0	0.30	0.004	mg/L	10.020	0.10	109	90-110	0.5	15	
Sulfate	23.6	1.0	0.09	mg/L	10.020	14.3	92	90-110	0.08	15	

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February 13, 2017

Report No.: AAB0145

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020148 - EPA 3005A											
Blank (7020148-BLK1)						Prepared: 02/07/17 Analyzed: 02/08/17					
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 (7020148-BS1)						Prepared: 02/07/17 Analyzed: 02/08/17					
Antimony	0.117	0.0030	0.0008	mg/L	0.10000		117	80-120			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000		104	80-120			
Barium	0.104	0.0100	0.0004	mg/L	0.10000		104	80-120			
Beryllium	0.0978	0.0030	0.00008	mg/L	0.10000		98	80-120			
Boron	0.985	0.0400	0.0064	mg/L	1.0000		99	80-120			
Cadmium	0.112	0.0010	0.00007	mg/L	0.10000		112	80-120			
Calcium	1.02	0.500	0.0311	mg/L	1.0000		102	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	0.105	0.0250	0.0005	mg/L	0.10000		105	80-120			
Lead	0.106	0.0050	0.0001	mg/L	0.10000		106	80-120			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000		109	80-120			
Nickel	0.104	0.0100	0.0006	mg/L	0.10000		104	80-120			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000		103	80-120			
Silver	0.108	0.0100	0.0005	mg/L	0.10000		108	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	0.107	0.0100	0.0021	mg/L	0.10000		107	80-120			
Lithium	0.0963	0.0500	0.0021	mg/L	0.10000		96	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020148 - EPA 3005A											
Matrix Spike (7020148-MS1)		**Source: AAB0145-04**			Prepared: 02/07/17 Analyzed: 02/08/17						
Antimony	0.113	0.0030	0.0008	mg/L	0.10000	ND	113	75-125			
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000	ND	105	75-125			
Barium	0.276	0.0100	0.0004	mg/L	0.10000	0.147	129	75-125			QM-02
Beryllium	0.0907	0.0030	0.00008	mg/L	0.10000	ND	91	75-125			
Boron	0.980	0.0400	0.0064	mg/L	1.0000	0.0334	95	75-125			
Cadmium	0.108	0.0010	0.00007	mg/L	0.10000	0.00009	108	75-125			
Calcium	40.7	25.0	1.55	mg/L	1.0000	38.1	254	75-125			QM-02
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	0.0010	104	75-125			
Cobalt	0.0981	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Copper	0.0993	0.0250	0.0005	mg/L	0.10000	ND	99	75-125			
Lead	0.105	0.0050	0.0001	mg/L	0.10000	ND	105	75-125			
Molybdenum	0.112	0.0100	0.0017	mg/L	0.10000	ND	112	75-125			
Nickel	0.103	0.0100	0.0006	mg/L	0.10000	0.0006	102	75-125			
Selenium	0.104	0.0100	0.0010	mg/L	0.10000	ND	104	75-125			
Silver	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Thallium	0.103	0.0010	0.0002	mg/L	0.10000	ND	103	75-125			
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000	ND	105	75-125			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125			
Lithium	0.0988	0.0500	0.0021	mg/L	0.10000	0.0092	90	75-125			
Matrix Spike Dup (7020148-MSD1)		**Source: AAB0145-04**			Prepared: 02/07/17 Analyzed: 02/08/17						
Antimony	0.115	0.0030	0.0008	mg/L	0.10000	ND	115	75-125	1	20	
Arsenic	0.107	0.0050	0.0016	mg/L	0.10000	ND	107	75-125	1	20	
Barium	0.284	0.0100	0.0004	mg/L	0.10000	0.147	137	75-125	3	20	QM-02
Beryllium	0.0902	0.0030	0.00008	mg/L	0.10000	ND	90	75-125	0.6	20	
Boron	0.984	0.0400	0.0064	mg/L	1.0000	0.0334	95	75-125	0.3	20	
Cadmium	0.106	0.0010	0.00007	mg/L	0.10000	0.00009	106	75-125	2	20	
Calcium	40.0	25.0	1.55	mg/L	1.0000	38.1	181	75-125	2	20	QM-02
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	0.0010	104	75-125	0.3	20	
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125	2	20	
Copper	0.115	0.0250	0.0005	mg/L	0.10000	ND	115	75-125	14	20	
Lead	0.107	0.0050	0.0001	mg/L	0.10000	ND	107	75-125	2	20	
Molybdenum	0.112	0.0100	0.0017	mg/L	0.10000	ND	112	75-125	0.2	20	
Nickel	0.102	0.0100	0.0006	mg/L	0.10000	0.0006	102	75-125	0.3	20	
Selenium	0.103	0.0100	0.0010	mg/L	0.10000	ND	103	75-125	1	20	
Silver	0.106	0.0100	0.0005	mg/L	0.10000	ND	106	75-125	2	20	
Thallium	0.104	0.0010	0.0002	mg/L	0.10000	ND	104	75-125	0.5	20	
Vanadium	0.107	0.0100	0.0071	mg/L	0.10000	ND	107	75-125	1	20	
Zinc	0.121	0.0100	0.0021	mg/L	0.10000	ND	121	75-125	15	20	
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0092	94	75-125	4	20	

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Report No.: AAB0145

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020148 - EPA 3005A											
Post Spike (7020148-PS1)			**Source: AAB0145-04**			Prepared: 02/07/17 Analyzed: 02/08/17					
Antimony	102			ug/L	100.00	0.0755	102	80-120			
Arsenic	107			ug/L	100.00	-0.0743	107	80-120			
Barium	274			ug/L	100.00	147	127	80-120			QM-02
Beryllium	90.8			ug/L	100.00	-0.0026	91	80-120			
Boron	974			ug/L	1000.0	33.4	94	80-120			
Cadmium	108			ug/L	100.00	0.0858	108	80-120			
Calcium	38900			ug/L	1000.0	38100	78	80-120			QM-02
Chromium	108			ug/L	100.00	0.976	107	80-120			
Cobalt	103			ug/L	100.00	0.0187	103	80-120			
Copper	103			ug/L	100.00	0.130	103	80-120			
Lead	109			ug/L	100.00	0.0182	109	80-120			
Molybdenum	112			ug/L	100.00	0.0628	112	80-120			
Nickel	105			ug/L	100.00	0.553	104	80-120			
Selenium	107			ug/L	100.00	0.203	107	80-120			
Silver	103			ug/L	100.00	-0.0019	103	80-120			
Thallium	108			ug/L	100.00	-0.0027	108	80-120			
Vanadium	110			ug/L	100.00	-1.42	110	80-120			
Zinc	107			ug/L	100.00	0.892	106	80-120			
Lithium	102			ug/L	100.00	9.18	93	80-120			
Batch 7020191 - EPA 7470A											
Blank (7020191-BLK1)						Prepared & Analyzed: 02/08/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7020191-BS1)						Prepared & Analyzed: 02/08/17					
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			

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February 13, 2017

Report No.: AAB0145

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020191 - EPA 7470A											
Duplicate (7020191-DUP1)			**Source: AAB0059-03RE1**			Prepared & Analyzed: 02/08/17					
Mercury	0.00364	0.00050	0.000041	mg/L		0.00351			3	20	
Matrix Spike (7020191-MS1)			**Source: AAB0145-02**			Prepared & Analyzed: 02/08/17					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (7020191-MSD1)			**Source: AAB0145-02**			Prepared & Analyzed: 02/08/17					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3	ND	97	75-125	2	20	
Post Spike (7020191-PS1)			**Source: AAB0145-02**			Prepared & Analyzed: 02/08/17					
Mercury	1.74			ug/L	1.6667	-0.00483	104	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 13, 2017

Legend

Definition of Laboratory Terms

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

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

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

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

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

CHAIN OF CUSTODY RECORD

Pace Analytical®

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

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway BIN B426
Birmingham, AL 35242
205-992-5417

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE:		P	P	P		
					PRESERVATION:		3	7	3		
02/02/17	10:00	GW		x	GWC-7	6	1	1	4	1	Extra Radium Volume collected for Lab QA/QC
02/02/17	11:40	GW		x	GWC-8	4	1	1	2	2	
02/02/17	13:10	GW		x	GWC-9	4	1	1	2	3	
02/02/17	10:00	GW		x	GWC-10	6	1	1	4	4	Extra Radium Volume collected for Lab QA/QC
02/02/17	14:55	GW		x	GWC-18	4	1	1	2	5	
02/02/17	12:01	GW		x	GWC-19	4	1	1	2	6	
02/02/17	13:48	GW		x	GWC-21	4	1	1	2	7	
02/02/17	15:11	GW		x	GWC-22	4	1	1	2	8	
02/02/17	--	GW		x	DUP-2	4	1	1	2	9	
02/02/17	14:10	W		x	FB-1	4	1	1	2	10	
02/02/17	14:15	W		x	FERB-1	4	1	1	2	11	
02/02/17	14:35	W		x	FB-2	4	1	1	2	12	

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

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

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

SAMPLED BY AND TITLE: M.Rogers ME, M. Burch MB, W.Virgo WEV
DATE/TIME: 2/2/2017 / 21:00

RELINQUISHED BY: Will Virgo (ERM)
DATE/TIME: 2/2/17 2100

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: [signature]
DATE/TIME: 02/03/17 1130

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

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

FOR LAB USE ONLY
LAB #: AAB0145
Entered Into LIMS: MR
Tracking #:

2017 02 01 Hammond COCs.xlsx

CHAIN OF CUSTODY RECORD

Pace Analytical®

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

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway BIN B426
Birmingham, AL 35242
205-992-5417

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)							LAB ID NUMBER
CONTAINER TYPE:								P	P	P							
PRESERVATION:								3	7	3							
02/02/17	14:40	W		X	FERB-2	4		1	1	2							13

CONTAINER TYPE / PRESERVATION

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

*MATRIX CODES:

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M.Rogers MR; M. Burch MB; W.Virgo WV — DATE/TIME: 2/2/2017 / 21:00

RELINQUISHED BY: W.V. V.O (ERM) — DATE/TIME: 2/2/17 2100

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: — DATE/TIME: 02/03/17 1130

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

Packed: No NA — Ice: Yes No NA — Temperature: 1° Min 1° Max

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

FOR LAB USE ONLY
LAB #: A-A0045
Entered Into LIMS:
Tracking #:

PACE ANALYTICAL SERVICES, LLC.

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

LOG-IN CHECKLIST **Printed: 2/6/2017 9:59:22AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 02/03/17 11:30

Work Order: AAB0145
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 13 **#Containers:** 56

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

CHECKLIST ITEMS

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

Comments:

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

February 28, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 30209861

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on February 06, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

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

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30209861

Pennsylvania Certification IDs

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

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

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 30209861

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30209861001	**GWC-7**	Water	02/02/17 10:00	02/06/17 09:20
30209861002	**GWC-8**	Water	02/02/17 11:40	02/06/17 09:20
30209861003	**GWC-9**	Water	02/02/17 13:10	02/06/17 09:20
30209861004	**GWC-10**	Water	02/02/17 10:00	02/06/17 09:20
30209861005	**GWC-18**	Water	02/02/17 14:55	02/06/17 09:20
30209861006	**GWC-19**	Water	02/02/17 12:01	02/06/17 09:20
30209861007	**GWC-21**	Water	02/02/17 13:48	02/06/17 09:20
30209861008	**GWC-22**	Water	02/02/17 15:11	02/06/17 09:20
30209861009	**Dup-2**	Water	02/02/17 00:00	02/06/17 09:20
30209861010	**FB-1**	Water	02/02/17 14:10	02/06/17 09:20
30209861011	**FERB-1**	Water	02/02/17 14:15	02/06/17 09:20
30209861012	**FB-2**	Water	02/02/17 14:35	02/06/17 09:20
30209861013	**FERB-2**	Water	02/02/17 14:40	02/06/17 09:20

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30209861

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30209861001	**GWC-7**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861002	**GWC-8**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861003	**GWC-9**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861004	**GWC-10**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861005	**GWC-18**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861006	**GWC-19**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861007	**GWC-21**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861008	**GWC-22**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861009	**Dup-2**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861010	**FB-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861011	**FERB-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861012	**FB-2**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209861013	**FERB-2**	EPA 9315	LAL	1

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30209861

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209861

Sample: GWC-7 **Lab ID: 30209861001** Collected: 02/02/17 10:00 Received: 02/06/17 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	**0.335 ± 0.171 (0.202) C:69% T:NA**	pCi/L	02/28/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.525 ± 0.485 (0.981) C:60% T:75%**	pCi/L	02/27/17 12:55	15262-20-1	
Total Radium	Total Radium Calculation	**0.860 ± 0.656 (1.18)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: GWC-8 **Lab ID: 30209861002** Collected: 02/02/17 11:40 Received: 02/06/17 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	**0.0272 ± 0.0690 (0.168) C:86% T:NA**	pCi/L	02/28/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.0480 ± 0.821 (1.86) C:56% T:79%**	pCi/L	02/28/17 12:50	15262-20-1	
Total Radium	Total Radium Calculation	**0.0752 ± 0.890 (2.03)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: GWC-9 **Lab ID: 30209861003** Collected: 02/02/17 13:10 Received: 02/06/17 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	**0.0521 ± 0.0998 (0.229) C:90% T:NA**	pCi/L	02/28/17 08:31	13982-63-3	
Radium-228	EPA 9320	**-0.476 ± 0.509 (1.24) C:69% T:82%**	pCi/L	02/28/17 12:50	15262-20-1	
Total Radium	Total Radium Calculation	**0.0521 ± 0.609 (1.47)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: GWC-10 **Lab ID: 30209861004** Collected: 02/02/17 10:00 Received: 02/06/17 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	**0.0634 ± 0.0819 (0.168) C:93% T:NA**	pCi/L	02/28/17 08:31	13982-63-3	
Radium-228	EPA 9320	**-0.205 ± 0.493 (1.17) C:73% T:78%**	pCi/L	02/28/17 12:50	15262-20-1	
Total Radium	Total Radium Calculation	**0.0634 ± 0.575 (1.34)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: GWC-18 **Lab ID: 30209861005** Collected: 02/02/17 14:55 Received: 02/06/17 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	**-0.0435 ± 0.0309 (0.162) C:97% T:NA**	pCi/L	02/28/17 08:31	13982-63-3	
Radium-228	EPA 9320	**-0.0477 ± 0.406 (0.961) C:66% T:74%**	pCi/L	02/28/17 11:47	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209861

Sample: GWC-18 **Lab ID: 30209861005** Collected: 02/02/17 14:55 Received: 02/06/17 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 Calculation	**0.000 ± 0.437 (1.12)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: GWC-19 **Lab ID: 30209861006** Collected: 02/02/17 12:01 Received: 02/06/17 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	**0.105 ± 0.0955 (0.169) C:93% T:NA**	pCi/L	02/28/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.342 ± 0.412 (0.868) C:62% T:84%**	pCi/L	02/28/17 11:48	15262-20-1	
Total Radium	Total Radium Calculation	**0.447 ± 0.508 (1.04)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: GWC-21 **Lab ID: 30209861007** Collected: 02/02/17 13:48 Received: 02/06/17 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	**0.00730 ± 0.0758 (0.204) C:90% T:NA**	pCi/L	02/28/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.252 ± 0.422 (0.920) C:72% T:68%**	pCi/L	02/28/17 11:48	15262-20-1	
Total Radium	Total Radium Calculation	**0.259 ± 0.498 (1.12)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: GWC-22 **Lab ID: 30209861008** Collected: 02/02/17 15:11 Received: 02/06/17 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	**0.0444 ± 0.0676 (0.144) C:92% T:NA**	pCi/L	02/28/17 10:04	13982-63-3	
Radium-228	EPA 9320	**0.482 ± 0.421 (0.846) C:71% T:84%**	pCi/L	02/28/17 12:44	15262-20-1	
Total Radium	Total Radium Calculation	**0.526 ± 0.489 (0.990)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: Dup-2 **Lab ID: 30209861009** Collected: 02/02/17 00:00 Received: 02/06/17 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	**0.00971 ± 0.0616 (0.167) C:91% T:NA**	pCi/L	02/28/17 10:04	13982-63-3	
Radium-228	EPA 9320	**0.000479 ± 0.439 (1.02) C:73% T:73%**	pCi/L	02/28/17 12:44	15262-20-1	
Total Radium	Total Radium Calculation	**0.0102 ± 0.501 (1.19)**	pCi/L	02/28/17 16:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209861

Sample: FB-1 **Lab ID: 30209861010** Collected: 02/02/17 14:10 Received: 02/06/17 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	**-0.0195 ± 0.0460 (0.160) C:97% T:NA**	pCi/L	02/28/17 10:04	13982-63-3	
Radium-228	EPA 9320	**0.678 ± 0.455 (0.863) C:71% T:73%**	pCi/L	02/28/17 11:49	15262-20-1	
Total Radium	Total Radium Calculation	**0.678 ± 0.501 (1.02)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: FERB-1 **Lab ID: 30209861011** Collected: 02/02/17 14:15 Received: 02/06/17 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	**0.0515 ± 0.0758 (0.162) C:94% T:NA**	pCi/L	02/28/17 10:04	13982-63-3	
Radium-228	EPA 9320	**0.212 ± 0.490 (1.09) C:71% T:70%**	pCi/L	02/28/17 11:49	15262-20-1	
Total Radium	Total Radium Calculation	**0.264 ± 0.566 (1.25)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: FB-2 **Lab ID: 30209861012** Collected: 02/02/17 14:35 Received: 02/06/17 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	**-0.0486 ± 0.0309 (0.153) C:96% T:NA**	pCi/L	02/28/17 10:04	13982-63-3	
Radium-228	EPA 9320	**-0.124 ± 0.372 (0.911) C:64% T:72%**	pCi/L	02/28/17 11:49	15262-20-1	
Total Radium	Total Radium Calculation	**0.000 ± 0.403 (1.06)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: FERB-2 **Lab ID: 30209861013** Collected: 02/02/17 14:40 Received: 02/06/17 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	**-0.0260 ± 0.0379 (0.152) C:98% T:NA**	pCi/L	02/28/17 10:04	13982-63-3	
Radium-228	EPA 9320	**0.254 ± 0.361 (0.775) C:79% T:72%**	pCi/L	02/28/17 11:49	15262-20-1	
Total Radium	Total Radium Calculation	**0.254 ± 0.399 (0.927)**	pCi/L	02/28/17 16:45	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209861

QC Batch: 249800 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30209861001, 30209861002, 30209861003, 30209861004, 30209861005, 30209861006, 30209861007, 30209861008, 30209861009, 30209861010, 30209861011, 30209861012, 30209861013

METHOD BLANK: 1229197 Matrix: Water
Associated Lab Samples: 30209861001, 30209861002, 30209861003, 30209861004, 30209861005, 30209861006, 30209861007, 30209861008, 30209861009, 30209861010, 30209861011, 30209861012, 30209861013

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0967 ± 0.410 (0.983) C:64% T:73%	pCi/L	02/27/17 12:38	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209861

QC Batch: 248827 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30209861001, 30209861002, 30209861003, 30209861004, 30209861005, 30209861006, 30209861007, 30209861008, 30209861009, 30209861010, 30209861011, 30209861012, 30209861013

METHOD BLANK: 1223626 Matrix: Water
Associated Lab Samples: 30209861001, 30209861002, 30209861003, 30209861004, 30209861005, 30209861006, 30209861007, 30209861008, 30209861009, 30209861010, 30209861011, 30209861012, 30209861013

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.111 ± 0.0941 (0.164) C:98% T:NA	pCi/L	02/28/17 08:33	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30209861

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAB0145 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 2/28/2017

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

WO#:30209861

30209861

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3					Requested Analysis Radium 226, 228, Total															LAB USE ONLY
1	GWC-7	G	2/2/2017 10:00	AAB0145-01	GW	4					X															
2	GWC-8	G	2/2/2017 11:40	AAB0145-02	GW	2					X															
3	GWC-9	G	2/2/2017 13:10	AAB0145-03	GW	2					X															
4	GWC-10	G	2/2/2017 10:00	AAB0145-04	GW	4					X															
5	GWC-18	G	2/2/2017 14:55	AAB0145-05	GW	2					X															
6	GWC-19	G	2/2/2017 12:01	AAB0145-06	GW	2					X															
7	GWC-21	G	2/2/2017 13:48	AAB0145-07	GW	2					X															
8	GWC-22	G	2/2/2017 15:11	AAB0145-08	GW	2					X															
9	Dup-2	G	2/2/2017 0:00	AAB0145-09	GW	2					X															
10	FB-1	G	2/2/2017 14:10	AAB0145-10	W	2					X															

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Karen Hill	2/6/17 0930	EQuIS deliverable required.
2					
3					

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

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

Chain of Custody

30209861

Pace Analytical
www.pacelabs.com

Workorder: AAB0145 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 2/28/2017

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

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis Radium 226, 228, Total	LAB USE ONLY
11	FERB-1	G	2/2/2017 14:15	AAB0145-11	W	2	X	
12	FB-2	G	2/2/2017 14:35	AAB0145-12	W	2	X	
13	FERB-2	G	2/2/2017 14:40	AAB0145-13	W	2	X	
14								
15								
16								
17								
18								
19								
20								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Karen Hill	2/6/17 0920	
2					
3					

Cooler Temperature on Receipt NA °C | **Custody Seal Y or (N)** | **Received on Ice Y or (N)** | **Sample Intact (Y) or N**

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

30209861

CHAIN OF CUSTODY RECORD

Pace Analytical

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

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 42 Inverness Center Parkway BIN B426, Birmingham, AL 35242, 205-992-5417

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

								Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
						CONTAINER TYPE:		P	P	P		
						PRESERVATION:		3	7	3		
Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS						
02/02/17	10:00	GW		x	GWC-7	6		1	1	4	1	Extra Radium Volume collected for Lab QA/QC
02/02/17	11:40	GW		x	GWC-8	4		1	1	2	2	
02/02/17	13:10	GW		x	GWC-9	4		1	1	2	3	
02/02/17	10:00	GW		x	GWC-10	6		1	1	4	4	Extra Radium Volume collected for Lab QA/QC
02/02/17	14:55	GW		x	GWC-18	4		1	1	2	5	
02/02/17	12:01	GW		x	GWC-19	4		1	1	2	6	
02/02/17	13:48	GW		x	GWC-21	4		1	1	2	7	
02/02/17	15:11	GW		x	GWC-22	4		1	1	2	8	
02/02/17	--	GW		x	DUP-2	4		1	1	2	9	
02/02/17	14:10	W		x	FB-1	4		1	1	2	10	
02/02/17	14:15	W		x	FERB-1	4		1	1	2	11	
02/02/17	14:35	W		x	FB-2	4		1	1	2	12	

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

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

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

SAMPLED BY AND TITLE: M.Rogers MR, M. Burch MB, W.Virgo WV — DATE/TIME: 2/2/2017 / 21:00

RELINQUISHED BY: Will Virgo (ERM) — DATE/TIME: 2/2/17 2100

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: M Rahman — DATE/TIME: 02/03/17 1130

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

pH checked: (Yes) No NA — Ice: (Yes) No NA — Temperature: 1°C Min 1°C Max — Custody Seal: (Intact) Broken Not Present — Cooler ID:

FOR LAB USE ONLY — LAB #: AAB0145 — Entered Into LIMS: MR — Tracking #:

2017 02 01 Hammond COCs.xlsx

30209861

CHAIN OF CUSTODY RECORD

PaceAnalytical

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

PAGE: 2 OF 2

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 42 Inverness Center Parkway BIN B426, Birmingham, AL 35242, 205-992-5417

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)						LAB ID NUMBER
					CONTAINER TYPE:			P	P	P						
					PRESERVATION:			3	7	3						
02/02/17	14:40	W		X	FERB-2	4		1	1	2						13

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

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

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M.Rogers MR, M. Burch MB, W.Virgo WAV — DATE/TIME: 2/2/2017 / 21:00

RELINQUISHED BY: Will Virgo (ERM) — DATE/TIME: 2/2/17 2100

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: M Lahman — DATE/TIME: 02/03/17 1130

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (circled) Pace CLIENT OTHER ES

pH checked: Yes (circled) No NA — Ice: Yes (circled) No NA — Temperature: 1°c Min. 1°c Max. — Custody Seal: Intact (circled) Broken Not Present — # of Coolers: — Cooler ID:

FOR LAB USE ONLY
LAB #: AAB0145
Entered Into LIMS: MM
Tracking #:

2017 02 01 Hammond COCs.xlsx

Sample Condition Upon Receipt Pittsburgh

30209861

Pace Analytical

Client Name: Pace Atlanta Project #

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

Tracking #: 6812 5102 1174

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

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 2/6/17

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓ ✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Organic Samples checked for dechlorination:			✓	13.
Filtered volume received for Dissolved tests			✓	14.
All containers have been checked for preservation. All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenolics	✓ ✓			15. pH<2 Initial when completed KH Date/time of preservation Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	16.
Trip Blank Present:			✓	17.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr		✓		Initial when completed: KH Date: 2/6/17

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

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

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

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

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	2/22/2017
Worklist:	34122
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1229197
MB concentration:	-0.097
M/B Counting Uncertainty:	0.410
MB MDC:	0.983
MB Numerical Performance Indicator:	-0.46
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS34122	LCSD34122
Count Date:	2/27/2017	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.195	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.813	
Target Conc. (pCi/L, g, F):	6.198	
Uncertainty (Calculated):	0.446	
Result (pCi/L, g, F):	5.265	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.635	
Numerical Performance Indicator:	-2.36	
Percent Recovery:	84.94%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

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

Duplicate Sample Assessment		
Sample I.D.:	30209861001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30209861001DUP	
Sample Result (pCi/L, g, F):	0.525	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.476	
Sample Duplicate Result (pCi/L, g, F):	0.650	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.375	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.404	30209861001
Duplicate RPD:	21.25%	30209861001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

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

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

Comments:

JLW 2/28/17

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	2/23/2017
Worklist:	33942
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1223626
MB concentration:	0.111
M/B Counting Uncertainty:	0.093
MB MDC:	0.164
MB Numerical Performance Indicator:	2.36
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS33942	LCSD33942
Count Date:	2/28/2017	
Spike I.D.:	17-003	
Spike Concentration (pCi/mL):	38.231	
Volume Used (mL):	0.25	
Aliquot Volume (L, g, F):	0.510	
Target Conc. (pCi/L, g, F):	18.750	
Uncertainty (Calculated):	0.882	
Result (pCi/L, g, F):	15.462	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.875	
Numerical Performance Indicator:	-5.19	
Percent Recovery:	82.46%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	30209701001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30209701001DUP	
Sample Result (pCi/L, g, F):	0.083	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.090	
Sample Duplicate Result (pCi/L, g, F):	0.131	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.100	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.688	30209701001
Duplicate RPD:	44.17%	30209701001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

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

PACE ANALYTICAL SERVICES, LLC.

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

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAB0154
February 10, 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

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

February 10, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-20	AAB0154-01	Ground Water	02/03/17 09:55	02/03/17 12:15
GWC-23	AAB0154-02	Ground Water	02/03/17 09:30	02/03/17 12:15

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

February 10, 2017

Report No.: AAB0154
Client ID: GWC-20
Date/Time Sampled: 2/3/2017 9:55:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0154-01
Date/Time Received: 2/3/2017 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	219	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 20:31	7020131	RLC
Fluoride	0.06	0.30	0.004	mg/L	EPA 300.0	J	1	02/06/17 10:35	02/06/17 20:31	7020131	RLC
Sulfate	27	1.0	0.09	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 20:31	7020131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Barium	0.123	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Boron	0.0171	0.0400	0.0064	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Calcium	49.0	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 09:40	02/08/17 18:46	7020146	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Lithium	0.0109	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 18:41	7020146	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:53	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 10, 2017

Report No.: AAB0154
Client ID: GWC-23
Date/Time Sampled: 2/3/2017 9:30:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAB0154-02
Date/Time Received: 2/3/2017 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	276	25	10	mg/L	SM 2540 C		1	02/07/17 17:47	02/07/17 17:47	7020163	JPT
Inorganic Anions											
Chloride	1.9	0.25	0.01	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 20:51	7020131	RLC
Fluoride	0.12	0.30	0.004	mg/L	EPA 300.0	J	1	02/06/17 10:35	02/06/17 20:51	7020131	RLC
Sulfate	38	1.0	0.09	mg/L	EPA 300.0		1	02/06/17 10:35	02/06/17 20:51	7020131	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Barium	0.0619	0.0100	0.0004	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Boron	0.0812	0.0400	0.0064	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Cadmium	0.00008	0.0010	0.00007	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Calcium	31.7	25.0	1.55	mg/L	EPA 6020B		50	02/07/17 09:40	02/08/17 19:09	7020146	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Lithium	0.0123	0.0500	0.0021	mg/L	EPA 6020B	J	1	02/07/17 09:40	02/08/17 19:04	7020146	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	02/08/17 11:40	02/08/17 15:56	7020191	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 10, 2017

Report No.: AAB0154

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020163 - SM 2540 C											
Blank (7020163-BLK1)						Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7020163-BS1)						Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	385	25	10	mg/L	400.00		96	84-108			
Duplicate (7020163-DUP1)		**Source: AAB0145-01**				Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	239	25	10	mg/L		236			1	10	
Duplicate (7020163-DUP2)		**Source: AAB0145-12**				Prepared & Analyzed: 02/07/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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February 10, 2017

Report No.: AAB0154

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020131 - EPA 300.0											
Blank (7020131-BLK1)						Prepared & Analyzed: 02/06/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7020131-BS1)						Prepared & Analyzed: 02/06/17					
Chloride	10.8	0.25	0.01	mg/L	10.010		108	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 (7020131-MS1)			**Source: AAB0084-02RE1**			Prepared & Analyzed: 02/06/17					
Chloride	11.8	0.25	0.01	mg/L	10.010	1.43	103	90-110			
Fluoride	10.6	0.30	0.004	mg/L	10.020	ND	105	90-110			
Sulfate	12.8	1.0	0.09	mg/L	10.020	2.61	102	90-110			
Matrix Spike (7020131-MS2)			**Source: AAB0102-02**			Prepared & Analyzed: 02/06/17					
Chloride	14.3	0.25	0.01	mg/L	10.010	8.49	58	90-110			QM-02
Fluoride	11.4	0.30	0.004	mg/L	10.020	0.48	109	90-110			
Sulfate	147	1.0	0.09	mg/L	10.020	160	NR	90-110			QM-02
Matrix Spike Dup (7020131-MSD1)			**Source: AAB0084-02RE1**			Prepared & Analyzed: 02/06/17					
Chloride	11.8	0.25	0.01	mg/L	10.010	1.43	103	90-110	0	15	
Fluoride	10.6	0.30	0.004	mg/L	10.020	ND	106	90-110	0.7	15	
Sulfate	12.8	1.0	0.09	mg/L	10.020	2.61	102	90-110	0.04	15	

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February 10, 2017

Report No.: AAB0154

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020146 - EPA 3005A											
Blank (7020146-BLK1)						Prepared: 02/07/17 Analyzed: 02/08/17					
Antimony	0.0014	0.0030	0.0008	mg/L							J
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	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 (7020146-BS1)						Prepared: 02/07/17 Analyzed: 02/08/17					
Antimony	0.114	0.0030	0.0008	mg/L	0.10000		114	80-120			
Arsenic	0.0994	0.0050	0.0016	mg/L	0.10000		99	80-120			
Barium	0.105	0.0100	0.0004	mg/L	0.10000		105	80-120			
Beryllium	0.0998	0.0030	0.00008	mg/L	0.10000		100	80-120			
Boron	0.969	0.0400	0.0064	mg/L	1.0000		97	80-120			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000		105	80-120			
Calcium	1.03	0.500	0.0311	mg/L	1.0000		103	80-120			
Chromium	0.0989	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.0954	0.0100	0.0005	mg/L	0.10000		95	80-120			
Copper	0.0983	0.0250	0.0005	mg/L	0.10000		98	80-120			
Lead	0.104	0.0050	0.0001	mg/L	0.10000		104	80-120			
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000		105	80-120			
Nickel	0.0995	0.0100	0.0006	mg/L	0.10000		100	80-120			
Selenium	0.101	0.0100	0.0010	mg/L	0.10000		101	80-120			
Silver	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.103	0.0010	0.0002	mg/L	0.10000		103	80-120			
Vanadium	0.0994	0.0100	0.0071	mg/L	0.10000		99	80-120			
Zinc	0.102	0.0100	0.0021	mg/L	0.10000		102	80-120			
Lithium	0.0968	0.0500	0.0021	mg/L	0.10000		97	80-120			

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Atlanta GA, 30339

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February 10, 2017

Report No.: AAB0154

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020146 - EPA 3005A											
Matrix Spike (7020146-MS1)		**Source: AAB0154-01**			Prepared: 02/07/17 Analyzed: 02/08/17						
Antimony	0.114	0.0030	0.0008	mg/L	0.10000	ND	114	75-125			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125			
Barium	0.254	0.0100	0.0004	mg/L	0.10000	0.123	131	75-125			QM-02
Beryllium	0.0961	0.0030	0.00008	mg/L	0.10000	ND	96	75-125			
Boron	0.972	0.0400	0.0064	mg/L	1.0000	0.0171	95	75-125			
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	54.5	25.0	1.55	mg/L	1.0000	49.0	553	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	0.103	0.0250	0.0005	mg/L	0.10000	0.0008	103	75-125			
Lead	0.103	0.0050	0.0001	mg/L	0.10000	ND	103	75-125			
Molybdenum	0.112	0.0100	0.0017	mg/L	0.10000	ND	112	75-125			
Nickel	0.104	0.0100	0.0006	mg/L	0.10000	ND	104	75-125			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000	ND	102	75-125			
Silver	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Thallium	0.103	0.0010	0.0002	mg/L	0.10000	ND	103	75-125			
Vanadium	0.109	0.0100	0.0071	mg/L	0.10000	ND	109	75-125			
Zinc	0.109	0.0100	0.0021	mg/L	0.10000	ND	109	75-125			
Lithium	0.113	0.0500	0.0021	mg/L	0.10000	0.0109	102	75-125			
Matrix Spike Dup (7020146-MSD1)		**Source: AAB0154-01**			Prepared: 02/07/17 Analyzed: 02/08/17						
Antimony	0.114	0.0030	0.0008	mg/L	0.10000	ND	114	75-125	0.4	20	
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000	ND	104	75-125	2	20	
Barium	0.250	0.0100	0.0004	mg/L	0.10000	0.123	127	75-125	2	20	QM-02
Beryllium	0.0899	0.0030	0.00008	mg/L	0.10000	ND	90	75-125	7	20	
Boron	0.922	0.0400	0.0064	mg/L	1.0000	0.0171	91	75-125	5	20	
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125	0.1	20	
Calcium	51.0	25.0	1.55	mg/L	1.0000	49.0	207	75-125	7	20	QM-02
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125	1	20	
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125	0.02	20	
Copper	0.0998	0.0250	0.0005	mg/L	0.10000	0.0008	99	75-125	4	20	
Lead	0.102	0.0050	0.0001	mg/L	0.10000	ND	102	75-125	0.7	20	
Molybdenum	0.110	0.0100	0.0017	mg/L	0.10000	ND	110	75-125	2	20	
Nickel	0.103	0.0100	0.0006	mg/L	0.10000	ND	103	75-125	0.6	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	0.2	20	
Thallium	0.101	0.0010	0.0002	mg/L	0.10000	ND	101	75-125	2	20	
Vanadium	0.104	0.0100	0.0071	mg/L	0.10000	ND	104	75-125	5	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	ND	105	75-125	3	20	
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0109	92	75-125	9	20	

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

February 10, 2017

Report No.: AAB0154

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020146 - EPA 3005A											
Post Spike (7020146-PS1)			**Source: AAB0154-01**			Prepared: 02/07/17 Analyzed: 02/08/17					
Antimony	98.7			ug/L	100.00	0.0118	99	80-120			
Arsenic	105			ug/L	100.00	-0.0551	105	80-120			
Barium	246			ug/L	100.00	123	123	80-120			QM-02
Beryllium	95.0			ug/L	100.00	-0.0039	95	80-120			
Boron	954			ug/L	1000.0	17.1	94	80-120			
Cadmium	106			ug/L	100.00	0.0668	106	80-120			
Calcium	53400			ug/L	1000.0	49000	441	80-120			QM-02
Chromium	104			ug/L	100.00	0.0456	104	80-120			
Cobalt	99.9			ug/L	100.00	0.0217	100	80-120			
Copper	101			ug/L	100.00	0.809	100	80-120			
Lead	106			ug/L	100.00	0.0057	106	80-120			
Molybdenum	109			ug/L	100.00	0.113	109	80-120			
Nickel	102			ug/L	100.00	0.239	101	80-120			
Selenium	107			ug/L	100.00	0.116	107	80-120			
Silver	100			ug/L	100.00	0.0014	100	80-120			
Thallium	104			ug/L	100.00	-0.0051	104	80-120			
Vanadium	105			ug/L	100.00	-1.29	105	80-120			
Zinc	103			ug/L	100.00	0.691	103	80-120			
Lithium	106			ug/L	100.00	10.9	95	80-120			
Batch 7020191 - EPA 7470A											
Blank (7020191-BLK1)						Prepared & Analyzed: 02/08/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7020191-BS1)						Prepared & Analyzed: 02/08/17					
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			

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February 10, 2017

Report No.: AAB0154

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020191 - EPA 7470A											
Duplicate (7020191-DUP1)			**Source: AAB0059-03RE1**			Prepared & Analyzed: 02/08/17					
Mercury	0.00364	0.00050	0.000041	mg/L		0.00351			3	20	
Matrix Spike (7020191-MS1)			**Source: AAB0145-02**			Prepared & Analyzed: 02/08/17					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (7020191-MSD1)			**Source: AAB0145-02**			Prepared & Analyzed: 02/08/17					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3	ND	97	75-125	2	20	
Post Spike (7020191-PS1)			**Source: AAB0145-02**			Prepared & Analyzed: 02/08/17					
Mercury	1.74			ug/L	1.6667	-0.00483	104	80-120			

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Attention: Mr. Joju Abraham

February 10, 2017

Legend

Definition of Laboratory Terms

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

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

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

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

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

CHAIN OF CUSTODY RECORD

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

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway BIN B426
Birmingham, AL 35242
205-992-5417

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

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)							LAB ID NUMBER
CONTAINER TYPE:								P	P	P							
PRESERVATION:								3	7	3							
02/03/17	0955	GW		x	GWC-20	4		1	1	2							1
02/03/17	0930	GW		x	GWC-23	4		1	1	2							2

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

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

*MATRIX CODES:

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M. Burch MB M.Rogers MR
DATE/TIME: 2/3/17 0955
RELINQUISHED BY: Will Virgo (ERM)
DATE/TIME: 2/3/17 1215
RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

FOR LAB USE ONLY
LAB #: AAX00154
Entered Into LIMS: MK
Tracking #:

RECEIVED BY LAB: Rachman
DATE/TIME: 02/03/17 1215
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
Locked: No NA
Ice: Yes No NA
Temperature: 6°C Min 6°C Max
Custody Seal: Intact Broken Not Present (N/A)
# of Coolers:
Cooler ID:

2017 01 31 Hammond COCs.xlsx

PACE ANALYTICAL SERVICES, LLC.

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

LOG-IN CHECKLIST **Printed: 2/6/2017 10:22:51AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 02/03/17 12:15

Work Order: AAB0154
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 2 **#Containers:** 8

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **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:

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAC0905
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

PACE ANALYTICAL SERVICES, LLC.

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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
GWA-4	AAC0905-01	Water	03/24/17 09:27	03/24/17 13:57
GWA-11	AAC0905-02	Water	03/24/17 11:00	03/24/17 13:57
GWC-7	AAC0905-03	Water	03/24/17 09:38	03/24/17 13:57
GWC-8	AAC0905-04	Water	03/24/17 11:05	03/24/17 13:57
FB-1	AAC0905-05	Water	03/24/17 08:55	03/24/17 13:57
FERB-1	AAC0905-06	Water	03/24/17 09:00	03/24/17 13:57
Dup-1	AAC0905-07	Water	03/24/17 00:00	03/24/17 13:57

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

April 03, 2017

Report No.: AAC0905
Client ID: GWA-4
Date/Time Sampled: 3/24/2017 9:27:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0905-01
Date/Time Received: 3/24/2017 1:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	579	25	10	mg/L	SM 2540 C		1	03/28/17 11:50	03/28/17 11:50	7030845	JPT
Inorganic Anions											
Chloride	7.0	0.25	0.01	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 13:38	7030885	RLC
Fluoride	0.12	0.30	0.004	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/29/17 13:38	7030885	RLC
Sulfate	140	10	0.92	mg/L	EPA 300.0		10	03/29/17 10:17	03/30/17 10:48	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Barium	0.0595	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Boron	0.0887	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Calcium	96.3	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 22:39	7030796	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Cobalt	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Nickel	0.0017	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Zinc	0.0095	0.0100	0.0013	mg/L	EPA 6020B	B-01, J	1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Lithium	0.0159	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:34	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:00	7030864	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0905
Client ID: GWA-11
Date/Time Sampled: 3/24/2017 11:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0905-02
Date/Time Received: 3/24/2017 1:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	121	25	10	mg/L	SM 2540 C		1	03/28/17 11:50	03/28/17 11:50	7030845	JPT
Inorganic Anions											
Chloride	1.3	0.25	0.01	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 20:31	7030885	RLC
Fluoride	0.01	0.30	0.004	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/29/17 20:31	7030885	RLC
Sulfate	12	1.0	0.09	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 20:31	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Barium	0.0320	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Boron	0.0343	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Calcium	21.1	5.00	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 22:51	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Lead	0.00007	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Nickel	0.0024	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Zinc	0.0068	0.0100	0.0013	mg/L	EPA 6020B	B-01, J	1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Lithium	0.0114	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 22:45	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:02	7030864	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0905
Client ID: GWC-7
Date/Time Sampled: 3/24/2017 9:38:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0905-03
Date/Time Received: 3/24/2017 1:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	291	25	10	mg/L	SM 2540 C		1	03/28/17 11:50	03/28/17 11:50	7030845	JPT
Inorganic Anions											
Chloride	1.3	0.25	0.01	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 20:52	7030885	RLC
Fluoride	0.22	0.30	0.004	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/29/17 20:52	7030885	RLC
Sulfate	68	5.0	0.46	mg/L	EPA 300.0		5	03/29/17 10:17	03/30/17 23:55	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Arsenic	0.0027	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Barium	0.181	0.0500	0.0013	mg/L	EPA 6020B		5	03/27/17 10:30	03/31/17 10:54	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Boron	0.0532	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Calcium	56.8	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 23:14	7030796	CSW
Chromium	0.0011	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Cobalt	0.0094	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Copper	0.0007	0.0250	0.0003	mg/L	EPA 6020B	B-01, J	1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Lead	0.0002	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Nickel	0.0313	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Zinc	0.0512	0.0100	0.0013	mg/L	EPA 6020B	B-01	1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Lithium	0.0084	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:08	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:05	7030864	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0905
Client ID: GWC-8
Date/Time Sampled: 3/24/2017 11:05:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0905-04
Date/Time Received: 3/24/2017 1:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	250	25	10	mg/L	SM 2540 C		1	03/28/17 11:50	03/28/17 11:50	7030845	JPT
Inorganic Anions											
Chloride	2.1	0.25	0.01	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 21:12	7030885	RLC
Fluoride	0.14	0.30	0.004	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/29/17 21:12	7030885	RLC
Sulfate	46	1.0	0.09	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 21:12	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Arsenic	0.0005	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Barium	0.106	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Boron	0.0234	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Calcium	64.4	25.0	0.522	mg/L	EPA 6020B		50	03/27/17 10:30	03/28/17 23:25	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Molybdenum	0.0008	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Nickel	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Zinc	0.0031	0.0100	0.0013	mg/L	EPA 6020B	B-01, J	1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Lithium	0.0079	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:19	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:07	7030864	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0905
Client ID: FB-1
Date/Time Sampled: 3/24/2017 8:55:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0905-05
Date/Time Received: 3/24/2017 1:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	03/28/17 11:50	03/28/17 11:50	7030845	JPT
Inorganic Anions											
Chloride	0.08	0.25	0.01	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/29/17 22:56	7030885	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 22:56	7030885	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 22:56	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Calcium	0.0296	0.500	0.0104	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Nickel	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Zinc	0.0021	0.0100	0.0013	mg/L	EPA 6020B	B-01, J	1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:31	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:09	7030864	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0905
Client ID: FERB-1
Date/Time Sampled: 3/24/2017 9:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0905-06
Date/Time Received: 3/24/2017 1:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	03/28/17 11:50	03/28/17 11:50	7030845	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/29/17 23:16	7030885	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 23:16	7030885	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 23:16	7030885	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Barium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Calcium	0.0918	0.500	0.0104	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Copper	0.0011	0.0250	0.0003	mg/L	EPA 6020B	B-01, J	1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Lead	0.00008	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Nickel	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Zinc	0.0018	0.0100	0.0013	mg/L	EPA 6020B	B-01, J	1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/27/17 10:30	03/28/17 23:37	7030796	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:12	7030864	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0905
Client ID: Dup-1
Date/Time Sampled: 3/24/2017 12:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0905-07
Date/Time Received: 3/24/2017 1:57:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	136	25	10	mg/L	SM 2540 C		1	03/28/17 11:50	03/28/17 11:50	7030845	JPT
Inorganic Anions											
Chloride	1.2	0.25	0.01	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 23:37	7030885	RLC
Fluoride	0.008	0.30	0.004	mg/L	EPA 300.0	J	1	03/29/17 10:17	03/29/17 23:37	7030885	RLC
Sulfate	12	1.0	0.09	mg/L	EPA 300.0		1	03/29/17 10:17	03/29/17 23:37	7030885	RLC
Metals, Total											
Antimony	0.0004	0.0030	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Barium	0.0340	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Boron	0.0360	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/31/17 15:13	7030831	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Calcium	21.0	5.00	0.522	mg/L	EPA 6020B	B-01	50	03/29/17 06:30	03/30/17 01:37	7030831	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Nickel	0.0027	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Zinc	0.0025	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Lithium	0.0121	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 06:30	03/30/17 01:31	7030831	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 14:14	7030864	MTC

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Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0905

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030845 - SM 2540 C											
Blank (7030845-BLK1)						Prepared & Analyzed: 03/28/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030845-BS1)						Prepared & Analyzed: 03/28/17					
Total Dissolved Solids	406	25	10	mg/L	400.00		102	84-108			
Duplicate (7030845-DUP1)		**Source: AAC0881-01**				Prepared & Analyzed: 03/28/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7030845-DUP2)		**Source: AAC0905-03**				Prepared & Analyzed: 03/28/17					
Total Dissolved Solids	273	25	10	mg/L		291			6	10	

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Report No.: AAC0905

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)						Prepared & Analyzed: 03/29/17					
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)						Prepared & Analyzed: 03/29/17					
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)		**Source: AAC0905-01**				Prepared & Analyzed: 03/29/17					
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)		**Source: AAC0910-04**				Prepared: 03/29/17 Analyzed: 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)		**Source: AAC0905-01**				Prepared & Analyzed: 03/29/17					
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	
Sulfate	168	1.0	0.09	mg/L	10.020	175	NR	90-110	0.005	15	QM-02

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Report No.: AAC0905

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030796 - EPA 3005A											
Blank (7030796-BLK1)						Prepared: 03/27/17 Analyzed: 03/28/17					
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	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							
LCS (7030796-BS1)						Prepared: 03/27/17 Analyzed: 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			

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April 03, 2017

Report No.: AAC0905

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 (7030796-MS1)		**Source: AAC0858-01**			Prepared: 03/27/17 Analyzed: 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	0.0013	mg/L	0.10000	ND	98	75-125			
Lithium	0.0984	0.0500	0.0011	mg/L	0.10000	0.0043	94	75-125			
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	

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April 03, 2017

Report No.: AAC0905

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030796 - EPA 3005A											
Post Spike (7030796-PS1)			**Source: AAC0858-01**			Prepared: 03/27/17 Analyzed: 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			
Batch 7030831 - EPA 3005A											
Blank (7030831-BLK1)						Prepared: 03/29/17 Analyzed: 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							

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0905

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)						Prepared: 03/29/17 Analyzed: 03/30/17					
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7030831-BS1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Antimony	0.109	0.0030	0.0003	mg/L	0.10000		109	80-120			
Arsenic	0.102	0.0050	0.0004	mg/L	0.10000		102	80-120			
Barium	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Beryllium	0.106	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	0.0011	mg/L	0.10000		110	80-120			
Matrix Spike (7030831-MS1)		**Source: AAC0909-01**				Prepared: 03/29/17 Analyzed: 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			

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

April 03, 2017

Report No.: AAC0905

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)		**Source: AAC0909-01**			Prepared: 03/29/17 Analyzed: 03/30/17						
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)		**Source: AAC0909-01**			Prepared: 03/29/17 Analyzed: 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	
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	3	20	
Nickel	0.107	0.0100	0.0003	mg/L	0.10000	0.0007	107	75-125	0.4	20	
Selenium	0.101	0.0100	0.0014	mg/L	0.10000	ND	101	75-125	5	20	
Silver	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125	0.9	20	
Thallium	0.0984	0.0010	0.00005	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	
Post Spike (7030831-PS1)		**Source: AAC0909-01**			Prepared: 03/29/17 Analyzed: 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			

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 03, 2017

Report No.: AAC0905

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)			**Source: AAC0909-01**			Prepared: 03/29/17 Analyzed: 03/30/17					
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 7030864 - EPA 7470A											
Blank (7030864-BLK1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030864-BS1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			
Matrix Spike (7030864-MS1)			**Source: AAC0880-02**			Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (7030864-MSD1)			**Source: AAC0880-02**			Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	0.3	20	
Post Spike (7030864-PS1)			**Source: AAC0880-02**			Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	1.72			ug/L	1.6667	-0.00214	103	80-120			

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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.

CHAIN OF CUSTODY RECORD

Pace Analytical®

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

CLIENT NAME: Georgia Power

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

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER
		CONTAINER TYPE:					P	P	P	
		PRESERVATION:					3	7	3	
3/24/17	0927	W		X	GWA-4	4	1	1	X2	1
3/24/17	1100	W		X	GWA-11	4	1	1	X2	2
3/24/17	0938	W		X	GWC-7	4	1	1	X2	3
3/24/17	1105	W		X	GWC-8 FD	4	1	1	X2	4
3/24/17	0855	W		X	FB-1	4	1	1	X2	5
3/24/17	0900	W		X	FERB-1	4	1	1	X2	6
3/24/17	—	W		X	DUP-1	4	1	1	X2	7

CONTAINER TYPE / PRESERVATION

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

*MATRIX CODES:

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: W.Virgo WV M.Burch MB T.Thomas TT

DATE/TIME: 1130 3/24/17

RELINQUISHED BY: Will Virgo (ERM)

DATE/TIME: 3/24/17 1357

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY LAB: Rahman

DATE/TIME: 03/24/17 1357

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

Packed: No NA

Ice: Yes No NA

Temperature: 2° Min. 2° Max.

Custody Seal: Intact Broken Not Present (NA)

# of Coolers

Cooler ID

FOR LAB USE ONLY
LAB #: 44C0905
Entered Into LIMS: MR
Tracking #:

PACE ANALYTICAL SERVICES, LLC.

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

LOG-IN CHECKLIST **Printed: 3/27/2017 11:35:21AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 03/24/17 13:57

Work Order: AAC0905
Logged In By: Mohammad M. Rahman

OBSERVATIONS

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

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:

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

April 19, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

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
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

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

CERTIFICATIONS

Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

Pennsylvania Certification IDs

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

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

SAMPLE SUMMARY

Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30214372001	**GWA-4**	Water	03/24/17 09:27	03/28/17 10:10
30214372002	**GWA-11**	Water	03/24/17 11:00	03/28/17 10:10
30214372003	**GWC-7**	Water	03/24/17 09:38	03/28/17 10:10
30214372004	**GWC-8**	Water	03/24/17 11:05	03/28/17 10:10
30214372005	**FB-1**	Water	03/24/17 08:55	03/28/17 10:10
30214372006	**FERB-1**	Water	03/24/17 09:00	03/28/17 10:10
30214372007	**Dup-1**	Water	03/24/17 00:00	03/28/17 10:10

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

SAMPLE ANALYTE COUNT

Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30214372001	**GWA-4**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214372002	**GWA-11**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214372003	**GWC-7**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214372004	**GWC-8**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214372005	**FB-1**	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214372006	**FERB-1**	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30214372007	**Dup-1**	EPA 9315	JC2	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1

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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

Sample: GWA-4 **Lab ID: 30214372001** Collected: 03/24/17 09:27 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	**0.0964 ± 0.130 (0.274) C:87% T:NA**	pCi/L	04/07/17 08:30	13982-63-3	
Radium-228	EPA 9320	**0.00688 ± 0.474 (1.11) C:77% T:85%**	pCi/L	04/11/17 20:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.103 ± 0.604 (1.38)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: GWA-11 **Lab ID: 30214372002** Collected: 03/24/17 11:00 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	**0.0289 ± 0.109 (0.279) C:86% T:NA**	pCi/L	04/07/17 08:30	13982-63-3	
Radium-228	EPA 9320	**0.358 ± 0.400 (0.833) C:82% T:92%**	pCi/L	04/11/17 20:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.387 ± 0.509 (1.11)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: GWC-7 **Lab ID: 30214372003** Collected: 03/24/17 09:38 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	**0.147 ± 0.135 (0.247) C:89% T:NA**	pCi/L	04/07/17 08:30	13982-63-3	
Radium-228	EPA 9320	**-0.0292 ± 0.436 (1.04) C:77% T:78%**	pCi/L	04/11/17 20:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.147 ± 0.571 (1.29)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: GWC-8 **Lab ID: 30214372004** Collected: 03/24/17 11:05 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	**0.121 ± 0.142 (0.294) C:89% T:NA**	pCi/L	04/07/17 08:30	13982-63-3	
Radium-228	EPA 9320	**0.222 ± 0.465 (1.03) C:81% T:83%**	pCi/L	04/11/17 20:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.343 ± 0.607 (1.32)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: FB-1 **Lab ID: 30214372005** Collected: 03/24/17 08:55 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
Radium-226	EPA 9315	**0.0581 ± 0.146 (0.349) C:86% T:NA**	pCi/L	04/07/17 08:30	13982-63-3	
Radium-228	EPA 9320	**0.0320 ± 0.332 (0.772) C:77% T:73%**	pCi/L	04/13/17 12:29	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

Sample: FB-1 **Lab ID: 30214372005** Collected: 03/24/17 08:55 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
Total Radium	Total Radium Calculation	**0.0901 ± 0.478 (1.12)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: FERB-1 **Lab ID: 30214372006** Collected: 03/24/17 09:00 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	**-0.0323 ± 0.0767 (0.255) C:88% T:NA**	pCi/L	04/07/17 08:30	13982-63-3	
Radium-228	EPA 9320	**0.337 ± 0.316 (0.638) C:77% T:81%**	pCi/L	04/13/17 12:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.337 ± 0.393 (0.893)**	pCi/L	04/19/17 06:35	7440-14-4	

Sample: Dup-1 **Lab ID: 30214372007** Collected: 03/24/17 00:00 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	**0.156 ± 0.155 (0.294) C:75% T:NA**	pCi/L	04/07/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.0491 ± 0.318 (0.734) C:73% T:85%**	pCi/L	04/13/17 12:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.205 ± 0.473 (1.03)**	pCi/L	04/19/17 06:35	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

QC Batch: 253967 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30214372001, 30214372002, 30214372003, 30214372004, 30214372005, 30214372006, 30214372007

METHOD BLANK: 1250173 Matrix: Water
Associated Lab Samples: 30214372001, 30214372002, 30214372003, 30214372004, 30214372005, 30214372006, 30214372007

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.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

QC Batch: 254541 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30214372001, 30214372002, 30214372003, 30214372004

METHOD BLANK: 1253314 Matrix: Water
Associated Lab Samples: 30214372001, 30214372002, 30214372003, 30214372004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.455 ± 0.376 (0.747) C:80% T:76%	pCi/L	04/11/17 17:17	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

QC Batch: 254543 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30214372005, 30214372006, 30214372007

METHOD BLANK: 1253320 Matrix: Water
Associated Lab Samples: 30214372005, 30214372006, 30214372007

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.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: AAC0905 Plant Hammond
Pace Project No.: 30214372

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

WO#:30214372

30214372

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAC0905 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 4/19/2017

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

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis Radium 226, 228, Total	LAB USE ONLY
1	GWA-4	G	3/24/2017 9:27	AAC0905-01	GW	2	X	001
2	GWA-11	G	3/24/2017 11:00	AAC0905-02	GW	2	X	002
3	GWC-7	G	3/24/2017 9:38	AAC0905-03	GW	2	X	003
4	GWC-8	G	3/24/2017 11:05	AAC0905-04	GW	2	X	004
5	FB-1	G	3/24/2017 8:55	AAC0905-05	W	2	X	005
6	FERB-1	G	3/24/2017 9:00	AAC0905-06	W	2	X	006
7	Dup-1	G	3/24/2017 0:00	AAC0905-07	GW	2	X	007
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	MZahmann	3/27/17	RBing Pace	3/28/17 1010	EQuIS deliverable required (EDD 7564).
2					
3					

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

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

30214372

CHAIN OF CUSTODY RECORD

Pace Analytical

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

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

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

REPORT TO: Lauren Petty

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)
CONTAINER TYPE:	P	P	P
PRESERVATION:	3	7	3

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
3/24/17	0927	W		X	GWA-4	4	1	1	X2	1	
3/24/17	1100	W		X	GWA-11	4	1	1	X2	2	
3/24/17	0938	W		X	GWC-7	4	1	1	X2	3	
3/24/17	1105	W		X	GWC-8	4	1	1	X2	4	
3/24/17	0855	W		X	FB-1	4	1	1	X2	5	
3/24/17	0900	W		X	FERB-1	4	1	1	X2	6	
3/24/17	—	W		X	DUP-1	4	1	1	X2	7	

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

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

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

SAMPLED BY AND TITLE: W.Virgo, M.Burch, T.Thomas — DATE/TIME: 1130 3/24/17

RELINQUISHED BY: Will Virgo (ERM) — DATE/TIME: 3/24/17 1357

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: M. Raliman — DATE/TIME: 03/24/17 1357

pH checked: Yes / No / NA — Ice: Yes / No / NA — Temperature: 2°C Min 2°C Max

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

Custody Seal: Intact / Broken / Not Present (N/A) — # of Coolers — Cooler ID

FOR LAB USE ONLY: LAB #: AAC0905 — Entered Into LIMS: MR — Tracking #:

2017 03 23 Hammond COCs.xlsx

RTB

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace GA Project # 30214372

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

Tracking #: 6812 5103 2675

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

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: RTB 3/28/17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation. All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenolics	X			15. Initial when completed 3/28/17 RTB; Date/time of preservation; Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:			X	17.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: RTB Date: 3/28/17

Client Notification/ Resolution:

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

Comments/ Resolution: _____

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

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

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

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	JC2
Date:	4/4/2017
Worklist:	34920
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1250173
MB concentration:	0.039
M/B Counting Uncertainty:	0.098
MB MDC:	0.239
MB Numerical Performance Indicator:	0.78
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS34920	LCSD34920
Count Date:	4/7/2017	4/7/2017
Spike I.D.:	17-003	17-003
Spike Concentration (pCi/mL):	38.230	38.230
Volume Used (mL):	0.25	0.25
Aliquot Volume (L, g, F):	0.504	0.501
Target Conc. (pCi/L, g, F):	18.964	19.059
Uncertainty (Calculated):	0.892	0.897
Result (pCi/L, g, F):	15.009	15.339
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.096	1.055
Numerical Performance Indicator:	-5.49	-5.27
Percent Recovery:	79.15%	80.48%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	LCS34920
Duplicate Sample I.D.	LCSD34920
Sample Result (pCi/L, g, F):	15.009
Sample Result Counting Uncertainty (pCi/L, g, F):	1.096
Sample Duplicate Result (pCi/L, g, F):	15.339
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.055
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	-0.425
Duplicate RPD:	2.17%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

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

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

4/18/17

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JJY
Date:	4/8/2017
Worklist:	34998
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1253320
MB concentration:	-0.123
M/B Counting Uncertainty:	0.297
MB MDC:	0.731
MB Numerical Performance Indicator:	-0.81
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS34998	LCSD34998
Count Date:	4/13/2017	4/13/2017
Spike I.D.:	17-005	17-005
Spike Concentration (pCi/mL):	24.795	24.795
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.812	0.815
Target Conc. (pCi/L, g, F):	6.108	6.085
Uncertainty (Calculated):	0.440	0.438
Result (pCi/L, g, F):	5.638	6.026
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.731	0.847
Numerical Performance Indicator:	-1.08	-0.12
Percent Recovery:	92.30%	99.03%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Duplicate Sample Assessment		
Sample I.D.:	LCS34998	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD34998	
Sample Result (pCi/L, g, F):	5.638	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.731	
Sample Duplicate Result (pCi/L, g, F):	6.026	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.847	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.680	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	7.03%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

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

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

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

Comments:

4/18/17

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	4/8/2017
Worklist:	34997
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1253314
MB concentration:	0.455
M/B Counting Uncertainty:	0.368
MB MDC:	0.747
MB Numerical Performance Indicator:	2.42
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS34997	LCSD34997
Count Date:	4/11/2017	
Spike I.D.:	17-005	
Spike Concentration (pCi/mL):	24.810	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.802	
Target Conc. (pCi/L, g, F):	6.188	
Uncertainty (Calculated):	0.446	
Result (pCi/L, g, F):	6.656	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.812	
Numerical Performance Indicator:	0.99	
Percent Recovery:	107.55%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

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

Duplicate Sample Assessment		
Sample I.D.:	30214099004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30214099004DUP	
Sample Result (pCi/L, g, F):	0.236	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.307	
Sample Duplicate Result (pCi/L, g, F):	0.434	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.294	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.912	30214099004
Duplicate RPD:	59.04%	30214099004DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

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

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

Comments:

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

PACE ANALYTICAL SERVICES, LLC.

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: AAC0957
April 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

PACE ANALYTICAL SERVICES, LLC.

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

Attention: Mr. Joju Abraham

April 05, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-9	AAC0957-01	Water	03/27/17 09:50	03/28/17 13:10
GWC-10	AAC0957-02	Water	03/27/17 09:55	03/28/17 13:10
GWC-18	AAC0957-03	Water	03/27/17 11:30	03/28/17 13:10
GWC-19	AAC0957-04	Water	03/27/17 11:38	03/28/17 13:10
GWC-20	AAC0957-05	Water	03/27/17 13:45	03/28/17 13:10
GWC-21	AAC0957-06	Water	03/27/17 13:57	03/28/17 13:10
GWC-22	AAC0957-07	Water	03/27/17 14:55	03/28/17 13:10
GWC-23	AAC0957-08	Water	03/27/17 15:05	03/28/17 13:10
FB-2	AAC0957-09	Water	03/27/17 13:00	03/28/17 13:10
FERB-2	AAC0957-10	Water	03/27/17 13:05	03/28/17 13:10
Dup-2	AAC0957-11	Water	03/27/17 00:00	03/28/17 13:10

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: GWC-9
Date/Time Sampled: 3/27/2017 9:50:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-01
Date/Time Received: 3/28/2017 1:10:00PM

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	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.01	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 16:49	7030924	RLC
Fluoride	0.07	0.30	0.004	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 16:49	7030924	RLC
Sulfate	68	5.0	0.46	mg/L	EPA 300.0		5	03/30/17 09:49	03/31/17 13:39	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Barium	0.0619	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Boron	0.0203	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Calcium	34.9	25.0	0.522	mg/L	EPA 6020B		50	03/29/17 12:55	04/04/17 15:21	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Nickel	0.0023	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Zinc	0.0014	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Lithium	0.0169	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:08	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:32	7030865	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: GWC-10
Date/Time Sampled: 3/27/2017 9:55:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-02
Date/Time Received: 3/28/2017 1:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	252	25	10	mg/L	SM 2540 C		1	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 17:11	7030924	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 17:11	7030924	RLC
Sulfate	33	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 17:11	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Barium	0.158	0.100	0.0027	mg/L	EPA 6020B		10	03/29/17 12:55	04/04/17 15:27	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Boron	0.0396	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/04/17 15:32	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Calcium	45.4	5.00	0.104	mg/L	EPA 6020B		10	03/29/17 12:55	04/04/17 15:27	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Nickel	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Zinc	0.0014	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Lithium	0.0107	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:19	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:35	7030865	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: GWC-18
Date/Time Sampled: 3/27/2017 11:30:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-03
Date/Time Received: 3/28/2017 1:10:00PM

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	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 17:32	7030924	RLC
Fluoride	0.11	0.30	0.004	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 17:32	7030924	RLC
Sulfate	12	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 17:32	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Arsenic	0.0005	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Barium	0.0714	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Boron	0.134	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Calcium	39.1	25.0	0.522	mg/L	EPA 6020B		50	03/29/17 12:55	03/31/17 23:48	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Molybdenum	0.0015	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Nickel	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Zinc	ND	0.0100	0.0013	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Lithium	0.0151	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:42	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:42	7030865	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: GWC-19
Date/Time Sampled: 3/27/2017 11:38:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-04
Date/Time Received: 3/28/2017 1:10:00PM

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	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	2.1	0.25	0.01	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 17:53	7030924	RLC
Fluoride	0.11	0.30	0.004	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 17:53	7030924	RLC
Sulfate	18	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 17:53	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Barium	0.152	0.100	0.0027	mg/L	EPA 6020B		10	03/29/17 12:55	04/04/17 15:38	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Boron	0.182	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Calcium	45.5	25.0	0.522	mg/L	EPA 6020B		50	03/29/17 12:55	03/31/17 23:59	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Copper	0.0004	0.0250	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Nickel	0.0062	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Zinc	0.0019	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Lithium	0.0194	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 12:55	03/31/17 23:54	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:44	7030865	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: GWC-20
Date/Time Sampled: 3/27/2017 1:45:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-05
Date/Time Received: 3/28/2017 1:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	239	25	10	mg/L	SM 2540 C		1	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	1.8	0.25	0.01	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 19:39	7030924	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 19:39	7030924	RLC
Sulfate	30	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 19:39	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Barium	0.112	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Boron	0.0181	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Calcium	50.7	25.0	0.522	mg/L	EPA 6020B		50	03/29/17 12:55	04/01/17 00:11	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Lead	0.00007	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Nickel	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Zinc	0.0017	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Lithium	0.0110	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:05	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:47	7030865	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: GWC-21
Date/Time Sampled: 3/27/2017 1:57:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-06
Date/Time Received: 3/28/2017 1:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	88	25	10	mg/L	SM 2540 C		1	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	2.7	0.25	0.01	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 20:00	7030924	RLC
Fluoride	0.01	0.30	0.004	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 20:00	7030924	RLC
Sulfate	29	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 20:00	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Barium	0.0363	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Boron	0.0225	0.0400	0.0060	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Calcium	20.9	5.00	0.522	mg/L	EPA 6020B		50	03/29/17 12:55	04/01/17 00:22	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Cobalt	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Copper	0.0005	0.0250	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Molybdenum	0.0010	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Nickel	0.0024	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Zinc	0.0036	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:17	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:49	7030865	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: GWC-22
Date/Time Sampled: 3/27/2017 2:55:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-07
Date/Time Received: 3/28/2017 1:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	324	25	10	mg/L	SM 2540 C		1	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 20:21	7030924	RLC
Fluoride	0.08	0.30	0.004	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 20:21	7030924	RLC
Sulfate	8.4	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 20:21	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Barium	0.0905	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Boron	0.0698	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Calcium	45.8	25.0	0.522	mg/L	EPA 6020B		50	03/29/17 12:55	04/01/17 00:34	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Nickel	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Zinc	ND	0.0100	0.0013	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Lithium	0.0157	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:28	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:51	7030865	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: GWC-23
Date/Time Sampled: 3/27/2017 3:05:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-08
Date/Time Received: 3/28/2017 1:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	295	25	10	mg/L	SM 2540 C		1	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 21:04	7030924	RLC
Fluoride	0.14	0.30	0.004	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 21:04	7030924	RLC
Sulfate	43	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 21:04	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Barium	0.0602	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Boron	0.125	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Calcium	32.0	25.0	0.522	mg/L	EPA 6020B		50	03/29/17 12:55	04/01/17 00:57	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Molybdenum	0.0024	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Nickel	0.0007	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Zinc	0.0014	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Lithium	0.0132	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 00:51	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 15:54	7030865	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: FB-2
Date/Time Sampled: 3/27/2017 1:00:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-09
Date/Time Received: 3/28/2017 1:10:00PM

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	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	0.12	0.25	0.01	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 21:25	7030924	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 21:25	7030924	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 21:25	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Calcium	0.0281	0.500	0.0104	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Nickel	0.0014	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Zinc	ND	0.0100	0.0013	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:02	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 16:40	7030877	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: FERB-2
Date/Time Sampled: 3/27/2017 1:05:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-10
Date/Time Received: 3/28/2017 1:10:00PM

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	04/03/17 15:10	04/03/17 15:10	7030964	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 21:46	7030924	RLC
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 21:46	7030924	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 21:46	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Barium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Calcium	0.0471	0.500	0.0104	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Copper	0.0003	0.0250	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Nickel	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Zinc	0.0024	0.0100	0.0013	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:08	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 16:42	7030877	MTC

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957
Client ID: Dup-2
Date/Time Sampled: 3/27/2017 12:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAC0957-11
Date/Time Received: 3/28/2017 1:10:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	301	25	10	mg/L	SM 2540 C		1	03/30/17 17:45	03/30/17 17:45	7030933	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.01	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 22:08	7030924	RLC
Fluoride	0.14	0.30	0.004	mg/L	EPA 300.0	J	1	03/30/17 09:49	03/30/17 22:08	7030924	RLC
Sulfate	11	1.0	0.09	mg/L	EPA 300.0		1	03/30/17 09:49	03/30/17 22:08	7030924	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Arsenic	0.0005	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Barium	0.0722	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Boron	0.141	0.0400	0.0060	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Calcium	40.6	2.50	0.0522	mg/L	EPA 6020B		5	03/29/17 12:55	04/01/17 01:25	7030871	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Copper	ND	0.0250	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Molybdenum	0.0011	0.0100	0.0006	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Nickel	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Silver	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Vanadium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Zinc	ND	0.0100	0.0013	mg/L	EPA 6020B		1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Lithium	0.0156	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/29/17 12:55	04/01/17 01:14	7030871	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/29/17 13:10	03/30/17 16:44	7030877	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

April 05, 2017

Report No.: AAC0957

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030933 - SM 2540 C											
Blank (7030933-BLK1)						Prepared & Analyzed: 03/30/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030933-BS1)						Prepared & Analyzed: 03/30/17					
Total Dissolved Solids	431	25	10	mg/L	400.00		108	84-108			
Duplicate (7030933-DUP1)		**Source: AAC0957-01**				Prepared & Analyzed: 03/30/17					
Total Dissolved Solids	236	25	10	mg/L		305			26	10	QR-03
Duplicate (7030933-DUP2)		**Source: AAC0957-09**				Prepared & Analyzed: 03/30/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Batch 7030964 - SM 2540 C											
Blank (7030964-BLK1)						Prepared & Analyzed: 04/03/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030964-BS1)						Prepared & Analyzed: 04/03/17					
Total Dissolved Solids	382	25	10	mg/L	400.00		96	84-108			
Duplicate (7030964-DUP1)		**Source: AAC0993-02**				Prepared & Analyzed: 04/03/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7030964-DUP2)		**Source: AAC0995-01**				Prepared & Analyzed: 04/03/17					
Total Dissolved Solids	211	25	10	mg/L		202			4	10	

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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 7030924 - EPA 300.0											
Blank (7030924-BLK1)						Prepared & Analyzed: 03/30/17					
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 (7030924-BS1)						Prepared & Analyzed: 03/30/17					
Chloride	10.0	0.25	0.01	mg/L	10.010		100	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 (7030924-MS1)		**Source: AAC0950-01**				Prepared & Analyzed: 03/30/17					
Chloride	204	0.25	0.01	mg/L	10.010	231	NR	90-110			QM-02
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.09	105	90-110			
Sulfate	257	1.0	0.09	mg/L	10.020	270	NR	90-110			QM-02
Matrix Spike (7030924-MS2)		**Source: AAC0957-07**				Prepared & Analyzed: 03/30/17					
Chloride	11.6	0.25	0.01	mg/L	10.010	1.53	101	90-110			
Fluoride	10.9	0.30	0.004	mg/L	10.020	0.08	108	90-110			
Sulfate	18.0	1.0	0.09	mg/L	10.020	8.36	97	90-110			
Matrix Spike Dup (7030924-MSD1)		**Source: AAC0950-01**				Prepared & Analyzed: 03/30/17					
Chloride	203	0.25	0.01	mg/L	10.010	231	NR	90-110	0.3	15	QM-02
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.09	105	90-110	0.3	15	
Sulfate	256	1.0	0.09	mg/L	10.020	270	NR	90-110	0.03	15	QM-02

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030865 - EPA 7470A											
Blank (7030865-BLK1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030865-BS1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			
Matrix Spike (7030865-MS1)		**Source: AAC0909-05**				Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7030865-MSD1)		**Source: AAC0909-05**				Prepared: 03/29/17 Analyzed: 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)		**Source: AAC0909-05**				Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	1.72			ug/L	1.6667	-0.00556	103	80-120			
Batch 7030871 - EPA 3005A											
Blank (7030871-BLK1)						Prepared: 03/29/17 Analyzed: 03/31/17					
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							

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April 05, 2017

Report No.: AAC0957

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030871 - EPA 3005A											
LCS (7030871-BS1)						Prepared: 03/29/17 Analyzed: 03/31/17					
Antimony	0.107	0.0030	0.0003	mg/L	0.10000		107	80-120			
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000		103	80-120			
Barium	0.0987	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	1.03	0.0400	0.0060	mg/L	1.0000		103	80-120			
Cadmium	0.109	0.0010	0.00006	mg/L	0.10000		109	80-120			
Calcium	1.02	0.500	0.0104	mg/L	1.0000		102	80-120			
Chromium	0.106	0.0100	0.0003	mg/L	0.10000		106	80-120			
Cobalt	0.0997	0.0100	0.0005	mg/L	0.10000		100	80-120			
Copper	0.102	0.0250	0.0003	mg/L	0.10000		102	80-120			
Lead	0.0982	0.0050	0.00007	mg/L	0.10000		98	80-120			
Molybdenum	0.102	0.0100	0.0006	mg/L	0.10000		102	80-120			
Nickel	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Selenium	0.0994	0.0100	0.0014	mg/L	0.10000		99	80-120			
Silver	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Thallium	0.0993	0.0010	0.00005	mg/L	0.10000		99	80-120			
Vanadium	0.105	0.0100	0.0014	mg/L	0.10000		105	80-120			
Zinc	0.104	0.0100	0.0013	mg/L	0.10000		104	80-120			
Lithium	0.103	0.0500	0.0011	mg/L	0.10000		103	80-120			
Matrix Spike (7030871-MS1)		**Source: AAC0950-01**				Prepared: 03/29/17 Analyzed: 03/31/17					
Antimony	0.106	0.0030	0.0003	mg/L	0.10000	ND	106	75-125			
Arsenic	0.107	0.0050	0.0004	mg/L	0.10000	0.0019	105	75-125			
Barium	0.304	0.100	0.0027	mg/L	0.10000	0.197	107	75-125			
Beryllium	0.101	0.0030	0.00007	mg/L	0.10000	ND	101	75-125			
Boron	20.0	2.00	0.302	mg/L	1.0000	19.1	85	75-125			
Cadmium	0.105	0.0010	0.00006	mg/L	0.10000	0.0003	105	75-125			
Calcium	448	25.0	0.522	mg/L	1.0000	417	NR	75-125			QM-02
Chromium	0.106	0.0100	0.0003	mg/L	0.10000	ND	106	75-125			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000	0.0010	101	75-125			
Copper	0.0959	0.0250	0.0003	mg/L	0.10000	ND	96	75-125			
Lead	0.0916	0.0050	0.00007	mg/L	0.10000	0.00008	92	75-125			
Molybdenum	0.119	0.0100	0.0006	mg/L	0.10000	0.0157	103	75-125			
Nickel	0.102	0.0100	0.0003	mg/L	0.10000	0.0025	100	75-125			
Selenium	0.114	0.0100	0.0014	mg/L	0.10000	0.0092	105	75-125			
Silver	0.0949	0.0100	0.0003	mg/L	0.10000	ND	95	75-125			
Thallium	0.0966	0.0010	0.00005	mg/L	0.10000	0.0006	96	75-125			
Vanadium	0.108	0.0100	0.0014	mg/L	0.10000	ND	108	75-125			
Zinc	0.100	0.0100	0.0013	mg/L	0.10000	ND	100	75-125			
Lithium	0.123	0.0500	0.0011	mg/L	0.10000	0.0192	104	75-125			

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April 05, 2017

Report No.: AAC0957

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030871 - EPA 3005A											
Matrix Spike Dup (7030871-MSD1)		**Source: AAC0950-01**			Prepared: 03/29/17 Analyzed: 03/31/17						
Antimony	0.109	0.0030	0.0003	mg/L	0.10000	ND	109	75-125	3	20	
Arsenic	0.111	0.0050	0.0004	mg/L	0.10000	0.0019	110	75-125	4	20	
Barium	0.296	0.100	0.0027	mg/L	0.10000	0.197	99	75-125	3	20	
Beryllium	0.102	0.0030	0.00007	mg/L	0.10000	ND	102	75-125	0.9	20	
Boron	19.4	2.00	0.302	mg/L	1.0000	19.1	34	75-125	3	20	QM-02
Cadmium	0.104	0.0010	0.00006	mg/L	0.10000	0.0003	104	75-125	1	20	
Calcium	423	25.0	0.522	mg/L	1.0000	417	551	75-125	6	20	QM-02
Chromium	0.107	0.0100	0.0003	mg/L	0.10000	ND	107	75-125	0.9	20	
Cobalt	0.105	0.0100	0.0005	mg/L	0.10000	0.0010	104	75-125	3	20	
Copper	0.0949	0.0250	0.0003	mg/L	0.10000	ND	95	75-125	1	20	
Lead	0.0927	0.0050	0.00007	mg/L	0.10000	0.00008	93	75-125	1	20	
Molybdenum	0.124	0.0100	0.0006	mg/L	0.10000	0.0157	108	75-125	4	20	
Nickel	0.101	0.0100	0.0003	mg/L	0.10000	0.0025	99	75-125	1	20	
Selenium	0.113	0.0100	0.0014	mg/L	0.10000	0.0092	104	75-125	0.8	20	
Silver	0.0976	0.0100	0.0003	mg/L	0.10000	ND	98	75-125	3	20	
Thallium	0.0978	0.0010	0.00005	mg/L	0.10000	0.0006	97	75-125	1	20	
Vanadium	0.114	0.0100	0.0014	mg/L	0.10000	ND	114	75-125	6	20	
Zinc	0.0973	0.0100	0.0013	mg/L	0.10000	ND	97	75-125	3	20	
Lithium	0.122	0.0500	0.0011	mg/L	0.10000	0.0192	103	75-125	1	20	
Post Spike (7030871-PS1)		**Source: AAC0950-01**			Prepared: 03/29/17 Analyzed: 03/31/17						
Antimony	106			ug/L	100.00	0.266	106	80-120			
Arsenic	110			ug/L	100.00	1.92	108	80-120			
Barium	302			ug/L	100.00	197	105	80-120			
Beryllium	105			ug/L	100.00	0.0448	105	80-120			
Boron	20300			ug/L	1000.0	19100	117	80-120			
Cadmium	104			ug/L	100.00	0.296	104	80-120			
Calcium	429000			ug/L	1000.0	417000	NR	80-120			QM-02
Chromium	110			ug/L	100.00	-0.0043	110	80-120			
Cobalt	105			ug/L	100.00	0.971	104	80-120			
Copper	96.6			ug/L	100.00	0.200	96	80-120			
Lead	94.0			ug/L	100.00	0.0790	94	80-120			
Molybdenum	123			ug/L	100.00	15.7	107	80-120			
Nickel	102			ug/L	100.00	2.48	100	80-120			
Selenium	113			ug/L	100.00	9.19	104	80-120			
Silver	93.7			ug/L	100.00	0.0283	94	80-120			
Thallium	98.0			ug/L	100.00	0.597	97	80-120			
Vanadium	112			ug/L	100.00	0.715	111	80-120			
Zinc	101			ug/L	100.00	0.867	100	80-120			
Lithium	121			ug/L	100.00	19.2	102	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030877 - EPA 7470A											
Blank (7030877-BLK1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030877-BS1)						Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3		94	80-120			
Matrix Spike (7030877-MS1)		**Source: AAC0957-11**				Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (7030877-MSD1)		**Source: AAC0957-11**				Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	2	20	
Post Spike (7030877-PS1)		**Source: AAC0957-11**				Prepared: 03/29/17 Analyzed: 03/30/17					
Mercury	1.68			ug/L	1.6667	-0.00432	101	80-120			

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Legend

Definition of Laboratory Terms

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

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

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

QM-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

CLIENT NAME: Georgia Power

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

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

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR + State GW

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	Metals State Permit (EPA 6020) Ag, Cu, Ni, V, Zn					LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:								P	P	P							
PRESERVATION:								3	7	3							
03/27/17	9:50	W		X	GWC-9	4		1	1	2	1					1	
03/27/17	9:55	W		X	GWC-10	4		1	1	2	1					2	
03/27/17	11:30	W		X	GWC-18	4		1	1	2	1					3	
03/27/17	11:38	W		X	GWC-19	5		1	1	3	1					4	1st Radium Volume collected in 2 1L bottles; 2nd Radium Volume collected in 1 1/2 gal HNO3 preserved
03/27/17	13:45	W		X	GWC-20	4		1	1	2	1					5	
03/27/17	13:57	W		X	GWC-21	4		1	1	2	1					6	
03/27/17	14:55	W		X	GWC-22	5		1	1	3	1					7	1st Radium Volume collected in 2 1L bottles; 2nd Radium Volume collected in 1 1/2 gal HNO3 preserved
03/27/17	15:05	W		X	GWC-23	4		1	1	2	1					8	
03/27/17	13:00	W		X	FB-2	3		1	1	1	1					9	Radium Volume collected in 1 1/2 gal HNO3 preserved bottle
03/27/17	13:05	W		X	FERB-2	3		1	1	1	1					10	Radium Volume collected in 1 1/2 gal HNO3 preserved bottle
03/27/17	--	W		X	DUP-2	3		1	1	1	1					11	Radium Volume collected in 1 1/2 gal HNO3 preserved bottle

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

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

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

SAMPLED BY AND TITLE: W.Virgo M.Burch, T.Thomas
DATE/TIME: 3/27/2017 : 15:30
RELINQUISHED BY: W.Virgo (ERM)
DATE/TIME: 3/28/17 1310

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

RECEIVED BY LAB:
DATE/TIME: 3/28/17 1310
Temperature: 3°C Min: 3°C Max:
Ice: Yes No NA
Checked: No NA
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
Custody Seal: Intact Broken Not Present N/A
# of Coolers
Cooler ID

FOR LAB USE ONLY
LAB #: ARC10957
Entered into LIMS: 12H
Tracking #:

PACE ANALYTICAL SERVICES, LLC.

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

LOG-IN CHECKLIST **Printed: 3/29/2017 12:18:52PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 03/28/17 13:10

Work Order: AAC0957
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 11 **#Containers:** 43

Minimum Temp(C): 3.0 **Maximum Temp(C):** 3.0 **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:

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

April 20, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on March 29, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

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

CERTIFICATIONS

Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

Pennsylvania Certification IDs

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

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

SAMPLE SUMMARY

Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30214506001	**GWC-9**	Water	03/27/17 09:50	03/29/17 10:00
30214506002	**GWC-10**	Water	03/27/17 09:55	03/29/17 10:00
30214506003	**GWC-18**	Water	03/27/17 11:30	03/29/17 10:00
30214506004	**GWC-19**	Water	03/27/17 11:38	03/29/17 10:00
30214506005	**GWC-20**	Water	03/27/17 13:45	03/29/17 10:00
30214506006	**GWC-21**	Water	03/27/17 13:57	03/29/17 10:00
30214506007	**GWC-22**	Water	03/27/17 14:55	03/29/17 10:00
30214506008	**GWC-23**	Water	03/27/17 15:05	03/29/17 10:00
30214506009	**FB-2**	Water	03/27/17 13:00	03/29/17 10:00
30214506010	**FERB-2**	Water	03/27/17 13:05	03/29/17 10:00
30214506011	**Dup-2**	Water	03/27/17 00:00	03/29/17 10:00

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30214506001	**GWC-9**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506002	**GWC-10**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506003	**GWC-18**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506004	**GWC-19**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506005	**GWC-20**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506006	**GWC-21**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506007	**GWC-22**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506008	**GWC-23**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506009	**FB-2**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506010	**FERB-2**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30214506011	**Dup-2**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

Sample: GWC-9 **Lab ID: 30214506001** Collected: 03/27/17 09:50 Received: 03/29/17 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	**0.109 ± 0.118 (0.229) C:94% T:NA**	pCi/L	04/07/17 10:18	13982-63-3	
Radium-228	EPA 9320	**0.251 ± 0.325 (0.690) C:75% T:82%**	pCi/L	04/14/17 15:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.360 ± 0.443 (0.919)**	pCi/L	04/20/17 12:12	7440-14-4	

Sample: GWC-10 **Lab ID: 30214506002** Collected: 03/27/17 09:55 Received: 03/29/17 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	**0.112 ± 0.131 (0.265) C:93% T:NA**	pCi/L	04/07/17 10:18	13982-63-3	
Radium-228	EPA 9320	**0.434 ± 0.371 (0.741) C:75% T:73%**	pCi/L	04/14/17 15:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.546 ± 0.502 (1.01)**	pCi/L	04/20/17 12:12	7440-14-4	

Sample: GWC-18 **Lab ID: 30214506003** Collected: 03/27/17 11:30 Received: 03/29/17 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	**-0.0102 ± 0.0805 (0.240) C:102% T:NA**	pCi/L	04/07/17 10:18	13982-63-3	
Radium-228	EPA 9320	**0.344 ± 0.308 (0.617) C:76% T:80%**	pCi/L	04/14/17 15:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.344 ± 0.389 (0.857)**	pCi/L	04/20/17 12:12	7440-14-4	

Sample: GWC-19 **Lab ID: 30214506004** Collected: 03/27/17 11:38 Received: 03/29/17 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	**0.0878 ± 0.132 (0.287) C:74% T:NA**	pCi/L	04/07/17 10:18	13982-63-3	
Radium-228	EPA 9320	**0.343 ± 0.320 (0.650) C:76% T:85%**	pCi/L	04/14/17 15:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.431 ± 0.452 (0.937)**	pCi/L	04/20/17 12:12	7440-14-4	

Sample: GWC-20 **Lab ID: 30214506005** Collected: 03/27/17 13:45 Received: 03/29/17 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	**0.0659 ± 0.123 (0.282) C:92% T:NA**	pCi/L	04/07/17 10:18	13982-63-3	
Radium-228	EPA 9320	**0.0849 ± 0.282 (0.641) C:75% T:77%**	pCi/L	04/14/17 15:09	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

Sample: GWC-20 **Lab ID: 30214506005** Collected: 03/27/17 13:45 Received: 03/29/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.151 ± 0.405 (0.923)**	pCi/L	04/20/17 12:12	7440-14-4	

Sample: GWC-21 **Lab ID: 30214506006** Collected: 03/27/17 13:57 Received: 03/29/17 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	**0.163 ± 0.164 (0.327) C:92% T:NA**	pCi/L	04/07/17 10:18	13982-63-3	
Radium-228	EPA 9320	**0.230 ± 0.330 (0.707) C:75% T:70%**	pCi/L	04/14/17 15:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.393 ± 0.494 (1.03)**	pCi/L	04/20/17 12:12	7440-14-4	

Sample: GWC-22 **Lab ID: 30214506007** Collected: 03/27/17 14:55 Received: 03/29/17 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	**0.0704 ± 0.106 (0.230) C:102% T:NA**	pCi/L	04/07/17 10:18	13982-63-3	
Radium-228	EPA 9320	**0.00420 ± 0.289 (0.677) C:70% T:88%**	pCi/L	04/14/17 15:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.0746 ± 0.395 (0.907)**	pCi/L	04/20/17 12:12	7440-14-4	

Sample: GWC-23 **Lab ID: 30214506008** Collected: 03/27/17 15:05 Received: 03/29/17 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	**0.271 ± 0.159 (0.228) C:99% T:NA**	pCi/L	04/07/17 10:18	13982-63-3	
Radium-228	EPA 9320	**0.221 ± 0.303 (0.648) C:81% T:85%**	pCi/L	04/14/17 15:10	15262-20-1	
Total Radium	Total Radium Calculation	**0.492 ± 0.462 (0.876)**	pCi/L	04/20/17 12:12	7440-14-4	

Sample: FB-2 **Lab ID: 30214506009** Collected: 03/27/17 13:00 Received: 03/29/17 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	**0.00427 ± 0.0924 (0.253) C:98% T:NA**	pCi/L	04/07/17 10:18	13982-63-3	
Radium-228	EPA 9320	**0.471 ± 0.359 (0.696) C:76% T:74%**	pCi/L	04/14/17 15:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.475 ± 0.451 (0.949)**	pCi/L	04/20/17 12:12	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

Sample: FERB-2 **Lab ID: 30214506010** Collected: 03/27/17 13:05 Received: 03/29/17 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	**-0.000517 ± 0.0863 (0.243) C:91% T:NA**	pCi/L	04/07/17 10:19	13982-63-3	
Radium-228	EPA 9320	**-0.101 ± 0.274 (0.680) C:74% T:74%**	pCi/L	04/14/17 15:08	15262-20-1	
Total Radium	Total Radium Calculation	**0.000 ± 0.360 (0.923)**	pCi/L	04/20/17 12:12	7440-14-4	

Sample: Dup-2 **Lab ID: 30214506011** Collected: 03/27/17 00:00 Received: 03/29/17 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	**0.0567 ± 0.108 (0.248) C:94% T:NA**	pCi/L	04/07/17 10:19	13982-63-3	
Radium-228	EPA 9320	**0.163 ± 0.300 (0.658) C:74% T:79%**	pCi/L	04/14/17 15:08	15262-20-1	
Total Radium	Total Radium Calculation	**0.220 ± 0.408 (0.906)**	pCi/L	04/20/17 12:12	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

QC Batch: 253968 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30214506001, 30214506002, 30214506003, 30214506004, 30214506005, 30214506006, 30214506007, 30214506008, 30214506009, 30214506010, 30214506011

METHOD BLANK: 1250174 Matrix: Water
Associated Lab Samples: 30214506001, 30214506002, 30214506003, 30214506004, 30214506005, 30214506006, 30214506007, 30214506008, 30214506009, 30214506010, 30214506011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0348 ± 0.0843 (0.204) C:94% T:NA	pCi/L	04/07/17 08:32	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

QC Batch: 254544 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30214506001, 30214506002, 30214506003, 30214506004, 30214506005, 30214506006, 30214506007, 30214506008, 30214506009, 30214506010, 30214506011

METHOD BLANK: 1253321 Matrix: Water
Associated Lab Samples: 30214506001, 30214506002, 30214506003, 30214506004, 30214506005, 30214506006, 30214506007, 30214506008, 30214506009, 30214506010, 30214506011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.191 ± 0.253 (0.655) C:76% T:78%	pCi/L	04/14/17 11:42	

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.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: AAC0957 Plant Hammond
Pace Project No.: 30214506

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

WO#:30214506

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAC0957 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 4/20/2017

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

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWC-9	G	3/27/2017 9:50	AAC0957-01	GW	2	X	001
2	GWC-10	G	3/27/2017 9:55	AAC0957-02	GW	2	X	002
3	GWC-18	G	3/27/2017 11:30	AAC0957-03	GW	2	X	003
4	GWC-19	G	3/27/2017 11:38	AAC0957-04	GW	3	X	004
5	GWC-20	G	3/27/2017 13:45	AAC0957-05	GW	2	X	005
6	GWC-21	G	3/27/2017 13:57	AAC0957-06	GW	2	X	006
7	GWC-22	G	3/27/2017 14:55	AAC0957-07	GW	3	X	007
8	GWC-23	G	3/27/2017 15:05	AAC0957-08	GW	2	X	008
9	FB-2	G	3/27/2017 13:00	AAC0957-09	W	1	X	009
10	FERB-2	G	3/27/2017 13:05	AAC0957-10	W	1	X	010

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	Charles Hanks	3/28/17 1730	KBig Pace	3/29/17	1000 EQuIS deliverable required (EDD 7564).
2					
3					

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

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

30214506

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAC0957 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 4/20/2017

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

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3					Requested Analysis Radium 226, 228, Total												LAB USE ONLY
11	Dup-2	G	3/27/2017 0:00	AAC0957-11	GW	1					X												011
12																							
13																							
14																							
15																							
16																							
17																							
18																							
19																							
20																							

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Pace	3/29/17	EQuIS deliverable required (EDD 7564).
2					
3					

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

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

30214506

CHAIN OF CUSTODY RECORD

PaceAnalytical

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

PAGE: 1 OF 1

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239
REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #:
laburch@southernco.com
PROJECT NAME/STATE: Plant Hammond - Huffaker
PROJECT #: CCR + State GW

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	Metals State Permit (EPA 6020) Ag, Cu, Ni, V, Zn					LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE:			P	P	P							
					PRESERVATION:			3	7	3							
03/27/17	9:50	W		X	GWC-9	4		1	1	2	1					1	
03/27/17	9:55	W		X	GWC-10	4		1	1	2	1					2	
03/27/17	11:30	W		X	GWC-18	4		1	1	2	1					3	
03/27/17	11:38	W		X	GWC-19	5		1	1	3	1					4	1st Radium Volume collected in 2 1L bottles; 2nd Radium Volume collected in 1 1/2 gal HNO3 preserved
03/27/17	13:45	W		X	GWC-20	4		1	1	2	1					5	
03/27/17	13:57	W		X	GWC-21	4		1	1	2	1					6	
03/27/17	14:55	W		X	GWC-22	5		1	1	3	1					7	1st Radium Volume collected in 2 1L bottles; 2nd Radium Volume collected in 1 1/2 gal HNO3 preserved
03/27/17	15:05	W		X	GWC-23	4		1	1	2	1					8	
03/27/17	13:00	W		X	FB-2	3		1	1	1	1					9	Radium Volume collected in 1 1/2 gal HNO3 preserved bottle
03/27/17	13:05	W		X	FERB-2	3		1	1	1	1					10	Radium Volume collected in 1 1/2 gal HNO3 preserved bottle
03/27/17	--	W		X	DUP-2	3		1	1	1	1					11	Radium Volume collected in 1 1/2 gal HNO3 preserved bottle

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

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

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

SAMPLED BY AND TITLE: W.Virgo, M.Burch, T.Thomas
DATE/TIME: 3/27/2017 : 15:30
RELINQUISHED BY: W. Virgo (ERM)
DATE/TIME: 3/28/17 1310
RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:
RECEIVED BY LAB: [signature]
DATE/TIME: 3/28/17 1310
pH checked: (Yes) No NA
Ice: (Yes) No NA
3.0 3.0

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (CLIENT) OTHER FS
Custody Seals: Intact Broken Not Present N/A

FOR LAB USE ONLY
LAB #: AAC0957
Entered into LIMS: [initials]
Tracking #:

2017 03 Huffaker COCs.xlsx

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace GA Project # 30214506

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [ ] Pace Other _____

Tracking #: 6812 5103 2870

Custody Seal on Cooler/Box Present: [ ] yes [X] no Seals intact: [ ] yes [ ] no

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: RTB 3/29/17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished: RTB 3/29/17	~~X~~	X		3. Not relinquished on 2nd page of COC.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation.	X			15. pH<2
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed 3/29/17 RTB; Date/time of preservation; Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:			X	17.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: RTB Date: 3/29/17

Client Notification/ Resolution:

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

Comments/ Resolution: _____

[ ] **A check in this box indicates that additional information has been stored in ereports.**

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

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

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	JC2
Date:	4/4/2017
Worklist:	34921
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1250174
MB concentration:	0.035
M/B Counting Uncertainty:	0.084
MB MDC:	0.204
MB Numerical Performance Indicator:	0.81
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS34921	LCSD34921
Count Date:	4/7/2017	4/7/2017
Spike I.D.:	17-003	17-003
Spike Concentration (pCi/mL):	38.230	38.230
Volume Used (mL):	0.25	0.25
Aliquot Volume (L, g, F):	0.510	0.511
Target Conc. (pCi/L, g, F):	18.736	18.715
Uncertainty (Calculated):	0.881	0.880
Result (pCi/L, g, F):	15.468	15.332
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.007	1.026
Numerical Performance Indicator:	-4.79	-4.90
Percent Recovery:	82.56%	81.92%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	LCS34921
Duplicate Sample I.D.	LCSD34921
Sample Result (pCi/L, g, F):	15.468
Sample Result Counting Uncertainty (pCi/L, g, F):	1.007
Sample Duplicate Result (pCi/L, g, F):	15.332
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	1.026
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	0.186
Duplicate RPD:	0.88%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

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

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

4/19/17

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	4/11/2017
Worklist:	34999
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1253321
MB concentration:	-0.191
M/B Counting Uncertainty:	0.251
MB MDC:	0.655
MB Numerical Performance Indicator:	-1.49
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS34999	LCSD34999
Count Date:	4/14/2017	4/14/2017
Spike I.D.:	17-005	17-005
Spike Concentration (pCi/mL):	24.787	24.787
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.801	0.802
Target Conc. (pCi/L, g, F):	6.187	6.181
Uncertainty (Calculated):	0.445	0.445
Result (pCi/L, g, F):	6.482	7.063
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.766	0.792
Numerical Performance Indicator:	0.65	1.90
Percent Recovery:	104.78%	114.27%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

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

Duplicate Sample Assessment		
Sample I.D.:	LCS34999	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD34999	
Sample Result (pCi/L, g, F):	6.482	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.766	
Sample Duplicate Result (pCi/L, g, F):	7.063	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.792	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-1.033	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	8.66%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

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

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

Comments:

4/19/17

PACE ANALYTICAL SERVICES, LLC.

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

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAJ0245
October 19, 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

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 19, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-1	AAJ0245-01	Ground Water	10/04/17 12:47	10/06/17 16:00
GWA-2	AAJ0245-02	Ground Water	10/04/17 13:30	10/06/17 16:00
GWA-3	AAJ0245-03	Ground Water	10/04/17 13:48	10/06/17 16:00
GWA-4	AAJ0245-04	Ground Water	10/04/17 15:05	10/06/17 16:00
GWC-5	AAJ0245-05	Ground Water	10/04/17 12:30	10/06/17 16:00
GWC-6	AAJ0245-06	Ground Water	10/04/17 14:20	10/06/17 16:00
GWC-7	AAJ0245-07	Ground Water	10/04/17 17:03	10/06/17 16:00
Dup-1	AAJ0245-08	Ground Water	10/04/17 00:00	10/06/17 16:00
GWA-11	AAJ0245-09	Ground Water	10/05/17 09:55	10/06/17 16:00
GWC-8	AAJ0245-10	Ground Water	10/05/17 10:00	10/06/17 16:00
GWC-9	AAJ0245-11	Ground Water	10/05/17 11:20	10/06/17 16:00
GWC-10	AAJ0245-12	Ground Water	10/05/17 09:53	10/06/17 16:00
GWC-18	AAJ0245-13	Ground Water	10/05/17 11:10	10/06/17 16:00
GWC-19	AAJ0245-14	Ground Water	10/05/17 11:05	10/06/17 16:00
GWC-20	AAJ0245-15	Ground Water	10/05/17 12:31	10/06/17 16:00
GWC-21	AAJ0245-16	Ground Water	10/05/17 12:33	10/06/17 16:00
GWC-22	AAJ0245-17	Ground Water	10/05/17 13:35	10/06/17 16:00
GWC-23	AAJ0245-18	Ground Water	10/05/17 12:30	10/06/17 16:00
Dup-2	AAJ0245-19	Ground Water	10/05/17 00:00	10/06/17 16:00
FB-1	AAJ0245-20	Water	10/05/17 10:45	10/06/17 16:00
FERB-1	AAJ0245-21	Water	10/05/17 10:50	10/06/17 16:00
FB-2	AAJ0245-22	Water	10/05/17 12:05	10/06/17 16:00
FERB-2	AAJ0245-23	Water	10/05/17 12:10	10/06/17 16:00

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWA-1
Date/Time Sampled: 10/4/2017 12:47:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-01
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	91	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	1.1	0.25	0.02	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 08:23	7100256	RLC
Fluoride	0.07	0.30	0.03	mg/L	EPA 300.0	J	1	10/10/17 10:24	10/12/17 08:23	7100256	RLC
Sulfate	5.0	1.0	0.02	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 08:23	7100256	RLC
Metals, Total											
Boron	0.0199	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 18:05	10/16/17 18:43	7100377	KLH
Calcium	15.9	5.00	2.02	mg/L	EPA 6020B		50	10/12/17 18:05	10/16/17 18:49	7100377	KLH

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWA-2
Date/Time Sampled: 10/4/2017 1:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-02
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	192	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	2.2	0.25	0.02	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 09:05	7100256	RLC
Fluoride	0.11	0.30	0.03	mg/L	EPA 300.0	J	1	10/10/17 10:24	10/12/17 09:05	7100256	RLC
Sulfate	12	1.0	0.02	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 09:05	7100256	RLC
Metals, Total											
Boron	0.0914	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 18:54	7100377	KLH
Calcium	36.5	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 18:05	10/16/17 19:00	7100377	KLH

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWA-3
Date/Time Sampled: 10/4/2017 1:48:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-03
Date/Time Received: 10/6/2017 4:00:00PM

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	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	3.6	0.25	0.02	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 10:30	7100256	RLC
Fluoride	0.49	0.30	0.03	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 10:30	7100256	RLC
Sulfate	140	10	0.17	mg/L	EPA 300.0		10	10/10/17 10:24	10/17/17 22:38	7100256	RLC
Metals, Total											
Boron	0.182	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 18:05	10/16/17 19:06	7100377	KLH
Calcium	78.8	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 18:05	10/16/17 19:12	7100377	KLH

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWA-4
Date/Time Sampled: 10/4/2017 3:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-04
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	440	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	7.4	0.25	0.02	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 10:51	7100256	RLC
Fluoride	0.20	0.30	0.03	mg/L	EPA 300.0	J	1	10/10/17 10:24	10/12/17 10:51	7100256	RLC
Sulfate	140	10	0.17	mg/L	EPA 300.0		10	10/10/17 10:24	10/17/17 22:58	7100256	RLC
Metals, Total											
Boron	0.105	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 17:38	7100367	CSW
Calcium	75.1	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 17:44	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWC-5
Date/Time Sampled: 10/4/2017 12:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-05
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	359	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	3.7	0.25	0.02	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 11:12	7100256	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 11:12	7100256	RLC
Sulfate	71	5.0	0.08	mg/L	EPA 300.0		5	10/10/17 10:24	10/17/17 23:19	7100256	RLC
Metals, Total											
Boron	0.0658	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 18:05	7100367	CSW
Calcium	70.8	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 18:10	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWC-6
Date/Time Sampled: 10/4/2017 2:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-06
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	365	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.02	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 11:33	7100256	RLC
Fluoride	0.03	0.30	0.03	mg/L	EPA 300.0	J	1	10/10/17 10:24	10/12/17 11:33	7100256	RLC
Sulfate	130	10	0.17	mg/L	EPA 300.0		10	10/10/17 10:24	10/17/17 23:40	7100256	RLC
Metals, Total											
Boron	0.0382	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 18:16	7100367	CSW
Calcium	62.4	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 18:22	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWC-7
Date/Time Sampled: 10/4/2017 5:03:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-07
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	264	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.02	mg/L	EPA 300.0		1	10/10/17 10:24	10/12/17 11:55	7100256	RLC
Fluoride	0.19	0.30	0.03	mg/L	EPA 300.0	J	1	10/10/17 10:24	10/12/17 11:55	7100256	RLC
Sulfate	120	10	0.17	mg/L	EPA 300.0		10	10/10/17 10:24	10/18/17 00:00	7100256	RLC
Metals, Total											
Boron	0.0563	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 18:28	7100367	CSW
Calcium	30.5	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 18:33	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: Dup-1
Date/Time Sampled: 10/4/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-08
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	364	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	3.2	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 12:00	7100350	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 12:00	7100350	RLC
Sulfate	70	5.0	0.08	mg/L	EPA 300.0		5	10/12/17 09:44	10/15/17 19:38	7100350	RLC
Metals, Total											
Boron	0.0671	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 18:39	7100367	CSW
Calcium	75.0	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 18:45	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWA-11
Date/Time Sampled: 10/5/2017 9:55:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-09
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	113	25	10	mg/L	SM 2540 C		1	10/10/17 16:55	10/10/17 16:55	7100258	JPT
Inorganic Anions											
Chloride	1.3	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 12:21	7100350	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 12:21	7100350	RLC
Sulfate	13	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 12:21	7100350	RLC
Metals, Total											
Boron	0.0325	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 18:50	7100367	CSW
Calcium	20.1	5.00	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 18:56	7100367	CSW

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October 19, 2017

Report No.: AAJ0245
Client ID: GWC-8
Date/Time Sampled: 10/5/2017 10:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-10
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	309	25	10	mg/L	SM 2540 C		1	10/06/17 17:35	10/06/17 17:35	7100259	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 12:41	7100350	RLC
Fluoride	0.15	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 12:41	7100350	RLC
Sulfate	48	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 12:41	7100350	RLC
Metals, Total											
Boron	0.0329	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 19:13	7100367	CSW
Calcium	59.9	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 19:19	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWC-9
Date/Time Sampled: 10/5/2017 11:20:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-11
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	204	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	1.1	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 13:02	7100350	RLC
Fluoride	0.06	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 13:02	7100350	RLC
Sulfate	74	5.0	0.08	mg/L	EPA 300.0		5	10/12/17 09:44	10/15/17 19:58	7100350	RLC
Metals, Total											
Boron	0.0157	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 19:25	7100367	CSW
Calcium	34.7	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 19:31	7100367	CSW

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October 19, 2017

Report No.: AAJ0245
Client ID: GWC-10
Date/Time Sampled: 10/5/2017 9:53:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-12
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	177	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 13:23	7100350	RLC
Fluoride	0.11	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 13:23	7100350	RLC
Sulfate	16	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 13:23	7100350	RLC
Metals, Total											
Boron	0.0294	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 19:36	7100367	CSW
Calcium	35.8	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 19:42	7100367	CSW

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October 19, 2017

Report No.: AAJ0245
Client ID: GWC-18
Date/Time Sampled: 10/5/2017 11:10:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-13
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	207	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 14:25	7100350	RLC
Fluoride	0.13	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 14:25	7100350	RLC
Sulfate	12	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 14:25	7100350	RLC
Metals, Total											
Boron	0.125	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 19:48	7100367	CSW
Calcium	41.6	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 19:53	7100367	CSW

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October 19, 2017

Report No.: AAJ0245
Client ID: GWC-19
Date/Time Sampled: 10/5/2017 11:05:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-14
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	242	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	1.9	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 14:45	7100350	RLC
Fluoride	0.13	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 14:45	7100350	RLC
Sulfate	16	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 14:45	7100350	RLC
Metals, Total											
Boron	0.166	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 19:59	7100367	CSW
Calcium	42.9	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 20:05	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWC-20
Date/Time Sampled: 10/5/2017 12:31:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-15
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	216	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	5.5	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 15:06	7100350	RLC
Fluoride	0.05	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 15:06	7100350	RLC
Sulfate	32	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 15:06	7100350	RLC
Metals, Total											
Boron	0.0178	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 20:22	7100367	CSW
Calcium	52.0	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 20:28	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWC-21
Date/Time Sampled: 10/5/2017 12:33:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-16
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	111	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	3.3	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 16:49	7100350	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 16:49	7100350	RLC
Sulfate	33	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 16:49	7100350	RLC
Metals, Total											
Boron	0.0304	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 20:33	7100367	CSW
Calcium	26.8	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 20:39	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: GWC-22
Date/Time Sampled: 10/5/2017 1:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-17
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	219	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 17:10	7100350	RLC
Fluoride	0.08	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 17:10	7100350	RLC
Sulfate	7.4	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 17:10	7100350	RLC
Metals, Total											
Boron	0.0677	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 20:45	7100367	CSW
Calcium	47.3	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 20:51	7100367	CSW

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Report No.: AAJ0245
Client ID: GWC-23
Date/Time Sampled: 10/5/2017 12:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-18
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	192	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 17:31	7100350	RLC
Fluoride	0.09	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 17:31	7100350	RLC
Sulfate	8.3	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 17:31	7100350	RLC
Metals, Total											
Boron	0.0375	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 20:56	7100367	CSW
Calcium	41.0	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 21:02	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: Dup-2
Date/Time Sampled: 10/5/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAJ0245-19
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	207	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 18:12	7100350	RLC
Fluoride	0.10	0.30	0.03	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 18:12	7100350	RLC
Sulfate	8.3	1.0	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 18:12	7100350	RLC
Metals, Total											
Boron	0.0355	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 21:08	7100367	CSW
Calcium	38.6	25.0	2.02	mg/L	EPA 6020B		50	10/12/17 17:00	10/13/17 21:14	7100367	CSW

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Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245
Client ID: FB-1
Date/Time Sampled: 10/5/2017 10:45:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAJ0245-20
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	0.77	0.25	0.02	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 18:33	7100350	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 18:33	7100350	RLC
Sulfate	0.03	1.0	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 18:33	7100350	RLC
Metals, Total											
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 21:31	7100367	CSW
Calcium	0.0576	0.500	0.0404	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 21:31	7100367	CSW

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October 19, 2017

Report No.: AAJ0245
Client ID: FERB-1
Date/Time Sampled: 10/5/2017 10:50:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AAJ0245-21
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	0.06	0.25	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 18:53	7100350	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 18:53	7100350	RLC
Sulfate	0.03	1.0	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 18:53	7100350	RLC
Metals, Total											
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 21:36	7100367	CSW
Calcium	0.0499	0.500	0.0404	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 21:36	7100367	CSW

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October 19, 2017

Report No.: AAJ0245
Client ID: FB-2
Date/Time Sampled: 10/5/2017 12:05:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAJ0245-22
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 19:14	7100350	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 19:14	7100350	RLC
Sulfate	0.03	1.0	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 19:14	7100350	RLC
Metals, Total											
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 21:42	7100367	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 21:42	7100367	CSW

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Report No.: AAJ0245
Client ID: FERB-2
Date/Time Sampled: 10/5/2017 12:10:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAJ0245-23
Date/Time Received: 10/6/2017 4:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/10/17 18:05	10/10/17 18:05	7100270	JPT
Inorganic Anions											
Chloride	0.06	0.25	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 19:35	7100350	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/12/17 09:44	10/13/17 19:35	7100350	RLC
Sulfate	0.04	1.0	0.02	mg/L	EPA 300.0	J	1	10/12/17 09:44	10/13/17 19:35	7100350	RLC
Metals, Total											
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/12/17 17:00	10/13/17 21:48	7100367	CSW
Calcium	0.106	0.500	0.0404	mg/L	EPA 6020B	J	1	10/12/17 17:00	10/13/17 21:48	7100367	CSW

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Report No.: AAJ0245

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											
Blank (7100258-BLK1)						Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7100258-BS1)						Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	367	25	10	mg/L	400.00		92	84-108			
Duplicate (7100258-DUP1)		**Source: AAJ0239-12**				Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7100258-DUP2)		**Source: AAJ0245-05**				Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	369	25	10	mg/L		359			3	10	
Batch 7100259 - SM 2540 C											
Blank (7100259-BLK1)						Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7100259-BS1)						Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	388	25	10	mg/L	400.00		97	84-108			
Duplicate (7100259-DUP1)		**Source: AAJ0178-08RE1**				Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7100259-DUP2)		**Source: AAJ0239-01**				Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	107	25	10	mg/L		191			56	10	QR-03
Batch 7100270 - SM 2540 C											
Blank (7100270-BLK1)						Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	ND	25	10	mg/L							

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General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100270 - SM 2540 C											
LCS (7100270-BS1)						Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	388	25	10	mg/L	400.00		97	84-108			
Duplicate (7100270-DUP1)			**Source: AAJ0245-11**			Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	203	25	10	mg/L		204			0.5	10	
Duplicate (7100270-DUP2)			**Source: AAJ0245-23**			Prepared & Analyzed: 10/10/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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Report No.: AAJ0245

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100256 - EPA 300.0											
Blank (7100256-BLK1)						Prepared: 10/10/17 Analyzed: 10/12/17					
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 (7100256-BS1)						Prepared: 10/10/17 Analyzed: 10/12/17					
Chloride	10.4	0.25	0.02	mg/L	10.020		104	90-110			
Fluoride	9.87	0.30	0.03	mg/L	10.020		99	90-110			
Sulfate	10.6	1.0	0.02	mg/L	10.050		106	90-110			
Matrix Spike (7100256-MS1)		**Source: AAJ0239-13**				Prepared: 10/10/17 Analyzed: 10/12/17					
Chloride	10.1	0.25	0.02	mg/L	10.020	0.06	101	90-110			
Fluoride	9.70	0.30	0.03	mg/L	10.020	ND	97	90-110			
Sulfate	10.4	1.0	0.02	mg/L	10.050	0.02	103	90-110			
Matrix Spike (7100256-MS2)		**Source: AAJ0245-01**				Prepared: 10/10/17 Analyzed: 10/12/17					
Chloride	11.2	0.25	0.02	mg/L	10.020	1.11	100	90-110			
Fluoride	9.95	0.30	0.03	mg/L	10.020	0.07	99	90-110			
Sulfate	15.1	1.0	0.02	mg/L	10.050	5.00	101	90-110			
Matrix Spike Dup (7100256-MSD1)		**Source: AAJ0239-13**				Prepared: 10/10/17 Analyzed: 10/12/17					
Chloride	10.1	0.25	0.02	mg/L	10.020	0.06	101	90-110	0.02	15	
Fluoride	9.72	0.30	0.03	mg/L	10.020	ND	97	90-110	0.2	15	
Sulfate	10.4	1.0	0.02	mg/L	10.050	0.02	104	90-110	0.3	15	
Batch 7100350 - EPA 300.0											
Blank (7100350-BLK1)						Prepared: 10/12/17 Analyzed: 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							

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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 7100350 - EPA 300.0											
LCS (7100350-BS1)						Prepared: 10/12/17 Analyzed: 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)			**Source: AAJ0245-12**			Prepared: 10/12/17 Analyzed: 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)			**Source: AAJ0245-18**			Prepared: 10/12/17 Analyzed: 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)			**Source: AAJ0245-12**			Prepared: 10/12/17 Analyzed: 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	

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100367 - EPA 3005A											
Blank (7100367-BLK1)						Prepared: 10/12/17 Analyzed: 10/13/17					
Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							
LCS (7100367-BS1)						Prepared: 10/12/17 Analyzed: 10/13/17					
Antimony	0.106	0.0030	0.0006	mg/L	0.10000		106	80-120			
Arsenic	0.0967	0.0050	0.0005	mg/L	0.10000		97	80-120			
Barium	0.0993	0.0100	0.0004	mg/L	0.10000		99	80-120			
Beryllium	0.0990	0.0030	0.00009	mg/L	0.10000		99	80-120			
Cadmium	0.0959	0.0010	0.0001	mg/L	0.10000		96	80-120			
Chromium	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Cobalt	0.0956	0.0100	0.0003	mg/L	0.10000		96	80-120			
Copper	0.0999	0.0250	0.0003	mg/L	0.10000		100	80-120			
Lead	0.0994	0.0050	0.00007	mg/L	0.10000		99	80-120			
Nickel	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Selenium	0.103	0.0100	0.0018	mg/L	0.10000		103	80-120			
Silver	0.101	0.0100	0.0002	mg/L	0.10000		101	80-120			
Thallium	0.101	0.0010	0.00005	mg/L	0.10000		101	80-120			
Vanadium	0.103	0.0100	0.0012	mg/L	0.10000		103	80-120			
Zinc	0.105	0.0100	0.0012	mg/L	0.10000		105	80-120			
Lithium	0.100	0.0500	0.0015	mg/L	0.10000		100	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100367 - EPA 3005A											
Matrix Spike (7100367-MS1)		**Source: AAJ0247-04**				Prepared: 10/12/17 Analyzed: 10/13/17					
Antimony	0.109	0.0030	0.0006	mg/L	0.10000	ND	109	75-125			
Arsenic	0.101	0.0050	0.0005	mg/L	0.10000	ND	101	75-125			
Barium	0.147	0.0100	0.0004	mg/L	0.10000	0.0486	98	75-125			
Beryllium	0.0979	0.0030	0.00009	mg/L	0.10000	ND	98	75-125			
Cadmium	0.0959	0.0010	0.0001	mg/L	0.10000	ND	96	75-125			
Chromium	0.0989	0.0100	0.0005	mg/L	0.10000	ND	99	75-125			
Cobalt	0.0951	0.0100	0.0003	mg/L	0.10000	0.0012	94	75-125			
Copper	0.0942	0.0250	0.0003	mg/L	0.10000	ND	94	75-125			
Lead	0.0957	0.0050	0.00007	mg/L	0.10000	ND	96	75-125			
Nickel	0.0993	0.0100	0.0005	mg/L	0.10000	0.0023	97	75-125			
Selenium	0.104	0.0100	0.0018	mg/L	0.10000	ND	104	75-125			
Silver	0.0986	0.0100	0.0002	mg/L	0.10000	ND	99	75-125			
Thallium	0.0983	0.0010	0.00005	mg/L	0.10000	ND	98	75-125			
Vanadium	0.102	0.0100	0.0012	mg/L	0.10000	ND	102	75-125			
Zinc	0.103	0.0100	0.0012	mg/L	0.10000	0.0031	100	75-125			
Lithium	0.113	0.0500	0.0015	mg/L	0.10000	0.0165	96	75-125			
Matrix Spike Dup (7100367-MSD1)		**Source: AAJ0247-04**				Prepared: 10/12/17 Analyzed: 10/13/17					
Antimony	0.111	0.0030	0.0006	mg/L	0.10000	ND	111	75-125	2	20	
Arsenic	0.101	0.0050	0.0005	mg/L	0.10000	ND	101	75-125	0.4	20	
Barium	0.150	0.0100	0.0004	mg/L	0.10000	0.0486	102	75-125	2	20	
Beryllium	0.0938	0.0030	0.00009	mg/L	0.10000	ND	94	75-125	4	20	
Cadmium	0.0981	0.0010	0.0001	mg/L	0.10000	ND	98	75-125	2	20	
Chromium	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125	2	20	
Cobalt	0.0946	0.0100	0.0003	mg/L	0.10000	0.0012	93	75-125	0.5	20	
Copper	0.0934	0.0250	0.0003	mg/L	0.10000	ND	93	75-125	0.9	20	
Lead	0.0978	0.0050	0.00007	mg/L	0.10000	ND	98	75-125	2	20	
Nickel	0.0983	0.0100	0.0005	mg/L	0.10000	0.0023	96	75-125	1	20	
Selenium	0.106	0.0100	0.0018	mg/L	0.10000	ND	106	75-125	3	20	
Silver	0.0990	0.0100	0.0002	mg/L	0.10000	ND	99	75-125	0.4	20	
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	ND	101	75-125	3	20	
Vanadium	0.105	0.0100	0.0012	mg/L	0.10000	ND	105	75-125	3	20	
Zinc	0.105	0.0100	0.0012	mg/L	0.10000	0.0031	102	75-125	1	20	
Lithium	0.109	0.0500	0.0015	mg/L	0.10000	0.0165	93	75-125	3	20	

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Report No.: AAJ0245

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100367 - EPA 3005A											
Post Spike (7100367-PS1)			**Source: AAJ0247-04**			Prepared: 10/12/17 Analyzed: 10/13/17					
Antimony	104			ug/L	100.00	0.401	103	80-120			
Arsenic	104			ug/L	100.00	0.417	104	80-120			
Barium	149			ug/L	100.00	48.6	100	80-120			
Beryllium	94.0			ug/L	100.00	-0.0024	94	80-120			
Cadmium	98.7			ug/L	100.00	0.0237	99	80-120			
Chromium	104			ug/L	100.00	0.235	104	80-120			
Cobalt	99.5			ug/L	100.00	1.23	98	80-120			
Copper	94.5			ug/L	100.00	0.139	94	80-120			
Lead	98.5			ug/L	100.00	0.0136	98	80-120			
Nickel	100			ug/L	100.00	2.25	98	80-120			
Selenium	111			ug/L	100.00	-0.254	111	80-120			
Silver	97.8			ug/L	100.00	0.0027	98	80-120			
Thallium	101			ug/L	100.00	0.0178	101	80-120			
Vanadium	104			ug/L	100.00	-1.80	104	80-120			
Zinc	106			ug/L	100.00	3.12	103	80-120			
Lithium	114			ug/L	100.00	16.5	98	80-120			
Batch 7100377 - EPA 3005A											
Blank (7100377-BLK1)						Prepared: 10/12/17 Analyzed: 10/16/17					
Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100377 - EPA 3005A											
LCS (7100377-BS1)						Prepared: 10/12/17 Analyzed: 10/16/17					
Antimony	0.0994	0.0030	0.0006	mg/L	0.10000		99	80-120			
Arsenic	0.0981	0.0050	0.0005	mg/L	0.10000		98	80-120			
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	0.0001	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		97	80-120			
Lead	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	0.0018	mg/L	0.10000		103	80-120			
Silver	0.0993	0.0100	0.0002	mg/L	0.10000		99	80-120			
Thallium	0.0967	0.0010	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: 10/16/17					
Antimony	0.0987	0.0030	0.0006	mg/L	0.10000	ND	99	75-125			
Arsenic	0.379	0.0050	0.0005	mg/L	0.10000	0.279	100	75-125			
Barium	0.151	0.0100	0.0004	mg/L	0.10000	0.0633	88	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	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	0.0972	0.0100	0.0002	mg/L	0.10000	ND	97	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			

PACE ANALYTICAL SERVICES, LLC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 19, 2017

Report No.: AAJ0245

Metals, Total - Quality Control

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)		**Source: AAJ0310-21**				Prepared: 10/12/17 Analyzed: 10/16/17					
Antimony	0.105	0.0030	0.0006	mg/L	0.10000	ND	105	75-125	6	20	
Arsenic	0.388	0.0050	0.0005	mg/L	0.10000	0.279	109	75-125	2	20	
Barium	0.160	0.0100	0.0004	mg/L	0.10000	0.0633	97	75-125	6	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	0.101	0.0100	0.0002	mg/L	0.10000	ND	101	75-125	4	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)		**Source: AAJ0310-21**				Prepared: 10/12/17 Analyzed: 10/16/17					
Antimony	101			ug/L	100.00	0.258	100	80-120			
Arsenic	374			ug/L	100.00	279	95	80-120			
Barium	158			ug/L	100.00	63.3	95	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	101			ug/L	100.00	0.0013	101	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			

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 19, 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.

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 SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 19, 2017

Report Notes

Per consultant 10/9/2017, metals parameters should be boron and calcium; not barium that is noted on COC. BMcD

CHAIN OF CUSTODY RECORD

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

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway
Birmingham, AL 35242
205-992-5417

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals - (Part 257 Appendix III) EPA 6020; Ba & Ca	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)							LAB ID NUMBER
CONTAINER TYPE:								P	P							
PRESERVATION:								3	7							
10/04/17	12:47	W		X	GWA-1	2		1	1							1
10/04/17	13:30	W		X	GWA-2	2		1	1							2
10/04/17	13:48	W		X	GWA-3	2		1	1							3
10/04/17	15:05	W		X	GWA-4	2		1	1							4
10/04/17	12:30	W		X	GWC-5	2		1	1							5
10/04/17	14:20	W		X	GWC-6	2		1	1							6
10/04/17	17:03	W		X	GWC-7	2		1	1							7
10/04/17	--	W		X	DUP-1	2		1	1							8

CONTAINER TYPE / PRESERVATION

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

*MATRIX CODES:

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: W.Virgo WV, M.Thomas MT, H.Beaugh H.B.
DATE/TIME: 10/4/17 - 1730

RELINQUISHED BY: W.V. (ERM)
DATE/TIME: 10/4/17 2130

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB:
DATE/TIME: 10/6/17 1600

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

Checked: No NA
Ice: Yes No NA
Temperature: Min: 1.1°C Max:
Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AA50745
Entered into LIMS: 24
Tracking #:

CHAIN OF CUSTODY RECORD

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

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway
Birmingham, AL 35242
205-992-5417

REPORT TO: Joju Abraham
CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals - (Part 257 Appendix III) EPA 6020; Ba & Ca	Cl, F, SO4 & TDS (EPA 300.0 & SM 2540C)							LAB ID NUMBER
CONTAINER TYPE:								P	P							
PRESERVATION:								3	7							
10/05/17	09:55	W		X	GWA-11	2		1	1							9
10/05/17	10:00	W		X	GWC-8	2		1	1							10
10/05/17	11:20	W		X	GWC-9	2		1	1							11
10/05/17	09:53	W		X	GWC-10	2		1	1							12
10/05/17	11:10	W		X	GWC-18	2		1	1							13
10/05/17	11:05	W		X	GWC-19	2		1	1							14
10/05/17	12:31	W		X	GWC-20	2		1	1							15
10/05/17	12:33	W		X	GWC-21	2		1	1							16
10/05/17	13:35	W		X	GWC-22	2		1	1							17
10/05/17	12:30	W		X	GWC-23	2		1	1							18
10/05/17	--	W		X	DUP-2	2		1	1							19
10/05/17	10:45	W		X	FB-1	2		1	1							20

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

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

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: W.Virgo WV; M.Thomas MT; H.Beaugh HB
DATE/TIME: 10/5/2017 - 15:00
RELINQUISHED BY: W.Virgo (ERM)
DATE/TIME: 10/6/17 0730

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

RECEIVED BY/LAB: Charles Hunter
DATE/TIME: 10/6/17 1600
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

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

FOR LAB USE ONLY
LAB #: AA50245
Entered into LIMS: 1/4
Tracking #:

CHAIN OF CUSTODY RECORD

Pace Analytical

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

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway
Birmingham, AL 35242
205-992-5417

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals - (Part 257 Appendix III) EPA 6020; Ba & Ca	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)							LAB ID NUMBER
CONTAINER TYPE:								P	P							
PRESERVATION:								3	7							
10/05/17	10:50	W		X	FERB-1	2		1	1							21
10/05/17	12:05	W		X	FB-2	2		1	1							22
10/05/17	12:10	W		X	FERB-2	2		1	1							23

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

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

*MATRIX CODES:

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: W.Virgo WTV; M.Thomas MT; H.Beaugh HB

DATE/TIME: 10/5/2017 - 15:00

RELINQUISHED BY: W.V (ERM)

DATE/TIME: 10/6/17 0730

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY LAB:

DATE/TIME: 10/6/17 1600

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

Checked: No NA

Ice: Yes No NA

Temperature: Min 1.1°C Max

Custody Seal: Intact Broken Not Present

# of Coolers:

Cooler ID:

FOR LAB USE ONLY

LAB #: AAJ0245

Entered into LIMS:

Tracking #:

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # AA10245

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

Optional
Proj. Due Date:
Proj. Name:

Tracking #: _____

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

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____

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

Cooler Temperature 1.1 °C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/6/17 CAB

Temp should be above freezing to 6°C Comments:

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

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

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

PACE ANALYTICAL SERVICES, LLC.

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

LOG-IN CHECKLIST **Printed: 10/19/2017 3:51:52PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 10/06/17 16:00

Work Order: AAJ0245
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 23 **#Containers:** 46

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

PACE ANALYTICAL SERVICES, INC.

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

Laboratory Report

Prepared For:

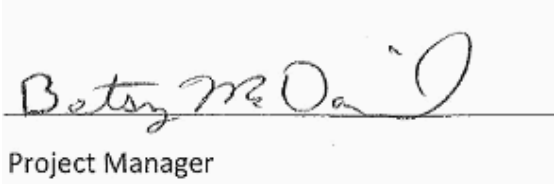
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZG0065**
July 13, 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

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
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Attention: Mr. Joju Abraham

July 13, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-1	AZG0065-01	Ground Water	07/05/16 18:29	07/06/16 09:15
GWA-2	AZG0065-02	Ground Water	07/05/16 19:15	07/06/16 09:15
GWA-3	AZG0065-03	Ground Water	07/05/16 19:20	07/06/16 09:15

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Attention: Mr. Joju Abraham

July 13, 2016

Report No.: AZG0065
Client ID: GWA-1
Date/Time Sampled: 7/5/2016 6:29:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0065-01
Date/Time Received: 7/6/2016 9:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	87	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/07/16 09:36	07/07/16 14:10	6070128	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	07/07/16 09:36	07/07/16 14:10	6070128	RLC
Sulfate	4.6	1.0	0.05	mg/L	EPA 300.0		1	07/07/16 09:36	07/07/16 14:10	6070128	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Barium	0.0403	0.0100	0.0003	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Boron	0.0419	0.100	0.0044	mg/L	EPA 6020B	J	1	07/07/16 07:40	07/07/16 14:27	6070113	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Calcium	15.7	2.50	0.0628	mg/L	EPA 6020B		5	07/07/16 07:40	07/07/16 16:53	6070113	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Cobalt	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Lithium	0.0101	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/07/16 07:40	07/07/16 14:24	6070113	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:07	6070188	CSW

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Attention: Mr. Joju Abraham

July 13, 2016

Report No.: AZG0065
Client ID: GWA-2
Date/Time Sampled: 7/5/2016 7:15:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0065-02
Date/Time Received: 7/6/2016 9:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	218	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	2.4	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/07/16 09:36	07/07/16 15:12	6070128	RLC
Fluoride	0.16	0.30	0.02	mg/L	EPA 300.0	J	1	07/07/16 09:36	07/07/16 15:12	6070128	RLC
Sulfate	15	1.0	0.05	mg/L	EPA 300.0		1	07/07/16 09:36	07/07/16 15:12	6070128	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Barium	0.182	0.0100	0.0003	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Boron	0.0962	0.100	0.0044	mg/L	EPA 6020B	J	1	07/07/16 07:40	07/07/16 14:32	6070113	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Calcium	40.5	5.00	0.126	mg/L	EPA 6020B		10	07/07/16 07:40	07/07/16 16:58	6070113	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Lithium	0.0108	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/07/16 07:40	07/07/16 14:29	6070113	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:09	6070188	CSW

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Attention: Mr. Joju Abraham

July 13, 2016

Report No.: AZG0065
Client ID: GWA-3
Date/Time Sampled: 7/5/2016 7:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0065-03
Date/Time Received: 7/6/2016 9:15:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	418	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	4.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/07/16 09:36	07/07/16 15:33	6070128	RLC
Fluoride	0.21	0.30	0.02	mg/L	EPA 300.0	J	1	07/07/16 09:36	07/07/16 15:33	6070128	RLC
Sulfate	110	5.0	0.26	mg/L	EPA 300.0		5	07/07/16 09:36	07/07/16 16:35	6070128	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Arsenic	0.0010	0.0050	0.0007	mg/L	EPA 6020B	J	1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Barium	0.172	0.0100	0.0003	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Boron	0.161	0.100	0.0044	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:36	6070113	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Calcium	65.3	5.00	0.126	mg/L	EPA 6020B		10	07/07/16 07:40	07/07/16 17:03	6070113	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Cobalt	0.0003	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Lithium	0.0180	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/07/16 07:40	07/07/16 14:34	6070113	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:11	6070188	CSW

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July 13, 2016

Report No.: AZG0065

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070155 - SM 2540 C											
Blank (6070155-BLK1)						Prepared & Analyzed: 07/08/16					
Total Dissolved Solids	ND	10	10	mg/L							
LCS (6070155-BS1)						Prepared & Analyzed: 07/08/16					
Total Dissolved Solids	359	10	10	mg/L	400.00		90	84-108			
Duplicate (6070155-DUP1)		**Source: AZG0065-02**				Prepared & Analyzed: 07/08/16					
Total Dissolved Solids	215	10	10	mg/L		218			1	10	
Duplicate (6070155-DUP2)		**Source: AZG0137-10**				Prepared & Analyzed: 07/08/16					
Total Dissolved Solids	185	10	10	mg/L		204			10	10	

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July 13, 2016

Report No.: AZG0065

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070128 - EPA 300.0											
Blank (6070128-BLK1)						Prepared & Analyzed: 07/07/16					
Chloride	0.05	0.25	0.01	mg/L							J
Fluoride	ND	0.10	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6070128-BS1)						Prepared & Analyzed: 07/07/16					
Chloride	9.82	1.0	0.01	mg/L	10.010		98	90-110			
Fluoride	10.5	0.10	0.02	mg/L	10.010		105	90-110			
Sulfate	10.0	5.0	0.05	mg/L	10.010		100	90-110			
Matrix Spike (6070128-MS1)		**Source: AZG0065-01**				Prepared & Analyzed: 07/07/16					
Chloride	9.99	1.0	0.01	mg/L	10.010	1.42	86	90-110			QM-05
Fluoride	9.58	0.10	0.02	mg/L	10.010	0.10	95	90-110			
Sulfate	13.2	5.0	0.05	mg/L	10.010	4.62	85	90-110			QM-05
Matrix Spike Dup (6070128-MSD1)		**Source: AZG0065-01**				Prepared & Analyzed: 07/07/16					
Chloride	11.0	1.0	0.01	mg/L	10.010	1.42	96	90-110	10	15	
Fluoride	10.6	0.10	0.02	mg/L	10.010	0.10	105	90-110	10	15	
Sulfate	14.2	5.0	0.05	mg/L	10.010	4.62	95	90-110	7	15	

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Report No.: AZG0065

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070113 - EPA 3005A											
Blank (6070113-BLK1)						Prepared & Analyzed: 07/07/16					
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	0.0050	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0050	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0050	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 (6070113-BS1)						Prepared & Analyzed: 07/07/16					
Antimony	0.102	0.0030	0.0002	mg/L	0.10000		102	80-120			
Arsenic	0.0993	0.0050	0.0007	mg/L	0.10000		99	80-120			
Barium	0.0978	0.0100	0.0003	mg/L	0.10000		98	80-120			
Beryllium	0.0988	0.0030	0.00009	mg/L	0.10000		99	80-120			
Boron	0.971	0.100	0.0044	mg/L	1.0000		97	80-120			
Cadmium	0.0993	0.0010	0.0001	mg/L	0.10000		99	80-120			
Calcium	0.969	0.500	0.0126	mg/L	1.0000		97	80-120			
Chromium	0.104	0.0100	0.0004	mg/L	0.10000		104	80-120			
Cobalt	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Copper	0.0989	0.0050	0.0004	mg/L	0.10000		99	80-120			
Lead	0.0965	0.0050	0.00008	mg/L	0.10000		96	80-120			
Molybdenum	0.0995	0.0100	0.0005	mg/L	0.10000		99	80-120			
Nickel	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Selenium	0.100	0.0100	0.0009	mg/L	0.10000		100	80-120			
Silver	0.101	0.0050	0.0002	mg/L	0.10000		101	80-120			
Thallium	0.0965	0.0010	0.00006	mg/L	0.10000		96	80-120			
Vanadium	0.101	0.0100	0.0016	mg/L	0.10000		101	80-120			
Zinc	0.100	0.0100	0.0013	mg/L	0.10000		100	80-120			
Lithium	0.0985	0.0500	0.0012	mg/L	0.10000		98	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070113 - EPA 3005A											
Matrix Spike (6070113-MS1)		**Source: AZG0027-01**			Prepared & Analyzed: 07/07/16						
Antimony	0.0965	0.0030	0.0002	mg/L	0.10000	0.0012	95	75-125			
Arsenic	0.100	0.0050	0.0007	mg/L	0.10000	0.0040	96	75-125			
Barium	0.107	0.0100	0.0003	mg/L	0.10000	0.0145	93	75-125			
Beryllium	0.0871	0.0030	0.00009	mg/L	0.10000	0.0003	87	75-125			
Boron	4.71	0.500	0.0221	mg/L	1.0000	3.80	91	75-125			
Cadmium	0.0925	0.0010	0.0001	mg/L	0.10000	0.0002	92	75-125			
Calcium	46.5	5.00	0.126	mg/L	1.0000	46.4	14	75-125			QM-02
Chromium	0.106	0.0100	0.0004	mg/L	0.10000	0.0070	99	75-125			
Cobalt	0.214	0.0100	0.0003	mg/L	0.10000	0.112	102	75-125			
Copper	0.107	0.0050	0.0004	mg/L	0.10000	0.0155	92	75-125			
Lead	0.0820	0.0050	0.00008	mg/L	0.10000	ND	82	75-125			
Molybdenum	0.0980	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Nickel	0.107	0.0050	0.0005	mg/L	0.10000	0.0140	93	75-125			
Selenium	0.121	0.0100	0.0009	mg/L	0.10000	0.0263	95	75-125			
Silver	0.0927	0.0050	0.0002	mg/L	0.10000	ND	93	75-125			
Thallium	0.0823	0.0010	0.00006	mg/L	0.10000	0.0002	82	75-125			
Vanadium	0.100	0.0100	0.0016	mg/L	0.10000	ND	100	75-125			
Zinc	0.183	0.0100	0.0013	mg/L	0.10000	0.0886	94	75-125			
Lithium	0.0880	0.0500	0.0012	mg/L	0.10000	0.0032	85	75-125			
Matrix Spike Dup (6070113-MSD1)		**Source: AZG0027-01**			Prepared & Analyzed: 07/07/16						
Antimony	0.0978	0.0030	0.0002	mg/L	0.10000	0.0012	97	75-125	1	20	
Arsenic	0.102	0.0050	0.0007	mg/L	0.10000	0.0040	98	75-125	2	20	
Barium	0.110	0.0100	0.0003	mg/L	0.10000	0.0145	96	75-125	3	20	
Beryllium	0.0881	0.0030	0.00009	mg/L	0.10000	0.0003	88	75-125	1	20	
Boron	4.85	0.500	0.0221	mg/L	1.0000	3.80	105	75-125	3	20	
Cadmium	0.0947	0.0010	0.0001	mg/L	0.10000	0.0002	95	75-125	2	20	
Calcium	47.0	5.00	0.126	mg/L	1.0000	46.4	59	75-125	1	20	QM-02
Chromium	0.106	0.0100	0.0004	mg/L	0.10000	0.0070	99	75-125	0.4	20	
Cobalt	0.213	0.0100	0.0003	mg/L	0.10000	0.112	101	75-125	0.5	20	
Copper	0.108	0.0050	0.0004	mg/L	0.10000	0.0155	93	75-125	1	20	
Lead	0.0819	0.0050	0.00008	mg/L	0.10000	ND	82	75-125	0.04	20	
Molybdenum	0.0997	0.0100	0.0005	mg/L	0.10000	ND	100	75-125	2	20	
Nickel	0.108	0.0050	0.0005	mg/L	0.10000	0.0140	94	75-125	0.8	20	
Selenium	0.126	0.0100	0.0009	mg/L	0.10000	0.0263	99	75-125	3	20	
Silver	0.0949	0.0050	0.0002	mg/L	0.10000	ND	95	75-125	2	20	
Thallium	0.0826	0.0010	0.00006	mg/L	0.10000	0.0002	82	75-125	0.4	20	
Vanadium	0.101	0.0100	0.0016	mg/L	0.10000	ND	101	75-125	1	20	
Zinc	0.186	0.0100	0.0013	mg/L	0.10000	0.0886	97	75-125	2	20	
Lithium	0.0893	0.0500	0.0012	mg/L	0.10000	0.0032	86	75-125	1	20	

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 13, 2016

Report No.: AZG0065

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070113 - EPA 3005A											
Post Spike (6070113-PS1)		**Source: AZG0027-01**				Prepared & Analyzed: 07/07/16					
Antimony	90.6			ug/L	100.00	1.23	89	80-120			
Arsenic	102			ug/L	100.00	3.99	98	80-120			
Barium	106			ug/L	100.00	14.5	91	80-120			
Beryllium	87.5			ug/L	100.00	0.300	87	80-120			
Boron	4710			ug/L	1000.0	3800	91	80-120			
Cadmium	94.1			ug/L	100.00	0.175	94	80-120			
Calcium	46200			ug/L	1000.0	46400	NR	80-120			QM-02
Chromium	108			ug/L	100.00	6.98	101	80-120			
Cobalt	213			ug/L	100.00	112	101	80-120			
Copper	108			ug/L	100.00	15.5	92	80-120			
Lead	83.4			ug/L	100.00	0.0396	83	80-120			
Molybdenum	98.1			ug/L	100.00	0.135	98	80-120			
Nickel	109			ug/L	100.00	14.0	95	80-120			
Selenium	120			ug/L	100.00	26.3	94	80-120			
Silver	92.2			ug/L	100.00	0.0370	92	80-120			
Thallium	84.5			ug/L	100.00	0.211	84	80-120			
Vanadium	103			ug/L	100.00	0.239	103	80-120			
Zinc	184			ug/L	100.00	88.6	95	80-120			
Lithium	87.5			ug/L	100.00	3.16	84	80-120			
Batch 6070188 - EPA 7470A											
Blank (6070188-BLK1)						Prepared & Analyzed: 07/11/16					
Mercury	ND	0.00050	0.00013	mg/L							
LCS (6070188-BS1)						Prepared & Analyzed: 07/11/16					
Mercury	0.00258	0.00050	0.00013	mg/L	2.5000E-3		103	80-120			

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 13, 2016

Report No.: AZG0065

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070188 - EPA 7470A											
Matrix Spike (6070188-MS1)			**Source: AZG0065-01**			Prepared & Analyzed: 07/11/16					
Mercury	0.00246	0.00050	0.00013	mg/L	2.5000E-3	ND	99	75-125			
Matrix Spike Dup (6070188-MSD1)			**Source: AZG0065-01**			Prepared & Analyzed: 07/11/16					
Mercury	0.00263	0.00050	0.00013	mg/L	2.5000E-3	ND	105	75-125	6	20	
Post Spike (6070188-PS1)			**Source: AZG0065-01**			Prepared & Analyzed: 07/11/16					
Mercury	1.66			ug/L	1.6667	-0.0178	100	80-120			

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 13, 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.

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY

Work Order No.
Reviewed By: AZG0065

[11] Page 1 of 1

Sample Shipment Date:[8] 7/6/2016
Sample Received Date:[9]
Sampled By:[10] G. Jirak (GJ) A. Shoredit (AS) M. Rogers (MR)

[X] [12] Standard Turnaround Time
[ ] # of Business Days (Rush)
(Must be cleared through Env. Lab. Prior to shipment)

Company:[1] Southern Company Services
Report To Joju Abraham, Heath McCorkle, Maria Padilla
Address:[2] 241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax:[3] 404-506-7239
Contact:[4] Joju Abraham
Project Location:[5] Plant Hammond
Account Number:[6]
Special Instructions:[7] Huffaker Rd GW CCR

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

PRESERVATIVE [20]: HNO3 N | ICE I | HNO3 N

ANALYSIS REQUESTED [21]:
17: Metals App. III & IV EPA 6020 + EPA 7470
18: Cl, F, SO4 EPA 300 TDS SM2540C
19: Ra-226 + Ra-228 9315 + 9320

Sample Type Key: [22] G-Grab C-Other C-Composite

Matrix Key: [23] O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water

Preservative Key: [24] H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved

LAB USE ONLY [13] LAB ID	Sample Number [14]	Collection [15] Date	Collection [15] Time	Sample Description [16]	Sample Type [17]	Matrix [18]	No. of Containers [19]	Metals App. III & IV EPA 6020 + EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Ra-226 + Ra-228 9315 + 9320	LAB USE ONLY [25] Comments
1	GWA-1	7/5/16	18:29		G	GW	3	1	1	1	
2	GWA-2	7/5/16	19:15		G	GW	3	1	1	1	
3	GWA-3	7/5/16	19:20		G	GW	3	1	1	1	

Relinquished by:[26]	Date/Time 7/6/2016 09:15	LAB USE ONLY: Sample Receipt Information [28]
Received by:[27]	Date/Time	Raluman, 07/06/16 0915, Ice, 2°C
Relinquished by:	Date/Time	No Seal, L/P, Client.
Received by:	Date/Time	

PACE ANALYTICAL SERVICES, INC.

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

LOG-IN CHECKLIST **Printed: 7/13/2016 11:01:47AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 07/06/16 09:15

Work Order: AZG0065
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 3 **#Containers:** 9

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:

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

August 08, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 30188935

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on July 07, 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
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: Plant Hammond
Pace Project No.: 30188935

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
Pace Project No.: 30188935

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30188935001	**GWA-1**	Water	07/05/16 18:29	07/07/16 09:40
30188935002	**GWA-2**	Water	07/05/16 19:15	07/07/16 09:40
30188935003	**GWA-3**	Water	07/05/16 19:20	07/07/16 09:40

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

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30188935

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30188935001	**GWA-1**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188935002	**GWA-2**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188935003	**GWA-3**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30188935

Sample: GWA-1 **Lab ID: 30188935001** Collected: 07/05/16 18:29 Received: 07/07/16 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	**0.0391 ± 0.110 (0.270) C:93% T:NA**	pCi/L	08/08/16 06:46	13982-63-3	
Radium-228	EPA 9320	**0.612 ± 0.451 (0.879) C:70% T:78%**	pCi/L	07/29/16 15:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.651 ± 0.561 (1.15)**	pCi/L	08/08/16 14:20	7440-14-4	

Sample: GWA-2 **Lab ID: 30188935002** Collected: 07/05/16 19:15 Received: 07/07/16 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	**0.123 ± 0.118 (0.215) C:95% T:NA**	pCi/L	08/08/16 06:46	13982-63-3	
Radium-228	EPA 9320	**0.361 ± 0.378 (0.784) C:75% T:83%**	pCi/L	08/01/16 12:37	15262-20-1	
Total Radium	Total Radium Calculation	**0.484 ± 0.496 (0.999)**	pCi/L	08/08/16 14:20	7440-14-4	

Sample: GWA-3 **Lab ID: 30188935003** Collected: 07/05/16 19:20 Received: 07/07/16 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	**0.207 ± 0.151 (0.259) C:96% T:NA**	pCi/L	08/08/16 06:46	13982-63-3	
Radium-228	EPA 9320	**0.329 ± 0.413 (0.876) C:77% T:80%**	pCi/L	08/01/16 12:37	15262-20-1	
Total Radium	Total Radium Calculation	**0.536 ± 0.564 (1.14)**	pCi/L	08/08/16 14:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30188935

QC Batch: 227761 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30188935002, 30188935003

METHOD BLANK: 1115859 Matrix: Water
Associated Lab Samples: 30188935002, 30188935003

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	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30188935

QC Batch: 228461 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30188935001, 30188935002, 30188935003

METHOD BLANK: 1119234 Matrix: Water
Associated Lab Samples: 30188935001, 30188935002, 30188935003

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	

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

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30188935

QC Batch: 227033 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30188935001

METHOD BLANK: 1112335 Matrix: Water
Associated Lab Samples: 30188935001

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	

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

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

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30188935

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.

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

30188935

LAB USE ONLY — Work Order No.: ____ Reviewed By: ____

Page[11] 1 of 1

Sample Shipment Date:[8] 7/6/2016
Sample Received Date:[9]
Sampled By:[10] G. Jirak (GJ) A. Shardlow(AS) M. Rogers(MR)

Signature

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

[X] [12] Standard Turnaround Time
[ ] # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment)

Company:[1] Southern Company Services
Report To: Joju Abraham, Heath McCorkle, Maria Padilla
Address:[2] 241 Ralph McGill Blvd SE BIN 10185, Atlanta, GA 30308
Phone/Fax:[3] 404-506-7239
Contact:[4] Joju Abraham
Project Location:[5] Plant Hammond
Account Number:[6]
Special Instructions:[7] Huffaker Rd GW CCR

Sample Type Key: 22 — G-Grab O-Other C-Composite

Matrix Key: 23 — O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water

Preservative Key: 24 — H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved

LAB USE ONLY[13] LAB ID	Sample Number[14]	Collection[15] Date	Time	Sample Description[16]	Sample Type[17]	Matrix[18]	No. of Containers[19]	Metals App. III & IV EPA 6020 & EPA 7470 (Preservative: HNO_3 N)	Cl, F, SO_4 EPA 300 TDS SM2540C (Preservative: ICE I)	Ra-SW-846 9315 + 9320 (Preservative: HNO_3 N)					LAB USE ONLY[25] Comments
	GWA-1	7/5/16	18:29		G	GW	3	1	1	1					001
	GWA-2	7/5/16	19:15		G	GW	3	1	1	1					002
	GWA-3	7/5/16	19:20		G	GW	3	1	1	1					003

WO#: 30188935

		LAB USE ONLY: Sample Receipt Information[28]
Relinquished by:[26] [signature]	Date/Time 7/6/2016 09:15	M Rahman, 07/06/16 0915, Ice, 2°C
Received by:[27] Karen E. Hill	Date/Time 7/7/16 0940	No Seal, L/P: Client
Relinquished by:	Date/Time	
Received by:	Date/Time	

Sample Condition Upon Receipt Pittsburgh

30188935

Pace Analytical

Client Name: Georgia Power Project # _____

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

Tracking #: 0812 5097 5275

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

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KA 7/7/16

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

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)

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	JAL
Date:	8/5/2016
Worklist:	30675
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1119234
MB concentration:	0.104
M/B Counting Uncertainty:	0.102
MB MDC:	0.181
MB Numerical Performance Indicator:	2.01
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS30675	**LCSD30675**
Count Date:	8/8/2016	8/8/2016
Spike I.D.:	16-026	16-026
Spike Concentration (pCi/mL):	44.679	44.679
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.505	0.510
Target Conc. (pCi/L, g, F):	8.841	8.760
Uncertainty (Calculated):	0.416	0.412
Result (pCi/L, g, F):	6.687	7.872
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.660	0.713
Numerical Performance Indicator:	-5.41	-2.11
Percent Recovery:	75.63%	89.86%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	LCS30675	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30675	
Sample Result (pCi/L, g, F):	6.687	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.660	
Sample Duplicate Result (pCi/L, g, F):	7.872	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.713	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-2.391	
Duplicate RPD:	16.28%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

8/8/16

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test: Ra-228
Analyst: JLW
Date: 7/26/2016
Worklist: 30471
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1112335
MB concentration:	0.351
M/B Counting Uncertainty:	0.388
MB MDC:	0.824
MB Numerical Performance Indicator:	1.77
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS30471	LCSD30471
Count Date:	7/29/2016	7/29/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	26.077	26.077
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.805	0.805
Target Conc. (pCi/L, g, F):	6.480	6.476
Uncertainty (Calculated):	0.467	0.466
Result (pCi/L, g, F):	4.275	6.743
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.707	0.776
Numerical Performance Indicator:	-5.10	0.58
Percent Recovery:	65.97%	104.12%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

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

Duplicate Sample Assessment		
Sample I.D.:	LCS30471	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30471	
Sample Result (pCi/L, g, F):	4.275	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.707	
Sample Duplicate Result (pCi/L, g, F):	6.743	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.776	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-4.608	
Duplicate RPD:	44.79%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

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

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

Comments:

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

8/8/16

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	8/1/2016
Worklist:	30471
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

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:	

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS30471	LCSD30471
Count Date:	8/3/2016	8/3/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	26.033	26.033
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.805	0.805
Target Conc. (pCi/L, g, F):	6.469	6.465
Uncertainty (Calculated):	0.466	0.465
Result (pCi/L, g, F):	7.541	7.936
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.949	0.838
Numerical Performance Indicator:	1.99	3.01
Percent Recovery:	116.57%	122.75%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	LCS30471	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30471	
Sample Result (pCi/L, g, F):	7.541	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.949	
Sample Duplicate Result (pCi/L, g, F):	7.936	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.838	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.612	
Duplicate RPD:	5.11%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

8/18/16

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JLW
Date:	7/28/2016
Worklist:	30562
Matrix:	DW

Method Blank Assessment

MB Sample ID	1115859
MB concentration:	0.173
M/B Counting Uncertainty:	0.362
MB MDC:	0.804
MB Numerical Performance Indicator:	0.94
MB Status vs Numerical Indicator:	~~N/A~~
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS30562	**LCSD30562**
Count Date:	8/1/2016	8/1/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	26.051	26.051
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.807	0.801
Target Conc. (pCi/L, g, F):	6.460	6.501
Uncertainty (Calculated):	0.465	0.468
Result (pCi/L, g, F):	6.058	6.086
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.728	0.749
Numerical Performance Indicator:	-0.91	-0.92
Percent Recovery:	93.78%	93.62%
Status vs Numerical Indicator:	~~N/A~~	~~N/A~~
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	LCS30562	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30562	
Sample Result (pCi/L, g, F):	6.058	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.728	
Sample Duplicate Result (pCi/L, g, F):	6.086	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.749	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.052	
Duplicate RPD:	0.46%	
Duplicate Status vs Numerical Indicator:	~~N/A~~	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

8/8/16

Ra_228_30562_W.xls

PACE ANALYTICAL SERVICES, INC.

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

Laboratory Report

Prepared For:

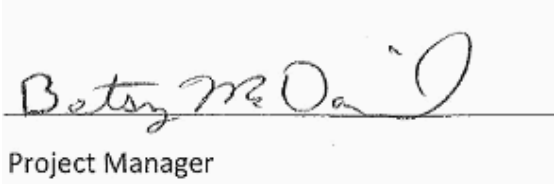
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZG0137**
July 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

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 14, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-7	AZG0137-01	Ground Water	07/06/16 15:37	07/07/16 09:55
GWC-6	AZG0137-02	Ground Water	07/06/16 13:50	07/07/16 09:55
GWC-5	AZG0137-03	Ground Water	07/06/16 08:50	07/07/16 09:55
GWC-19	AZG0137-04	Ground Water	07/06/16 15:06	07/07/16 09:55
Dup-1	AZG0137-05	Ground Water	07/06/16 00:00	07/07/16 09:55
GWC-10	AZG0137-06	Ground Water	07/06/16 13:38	07/07/16 09:55
GWA-11	AZG0137-07	Ground Water	07/06/16 11:05	07/07/16 09:55
GWA-4	AZG0137-08	Ground Water	07/06/16 09:45	07/07/16 09:55
GWC-8	AZG0137-09	Ground Water	07/06/16 14:25	07/07/16 09:55
GWC-9	AZG0137-10	Ground Water	07/06/16 16:35	07/07/16 09:55

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 14, 2016

Report No.: AZG0137
Client ID: GWC-7
Date/Time Sampled: 7/6/2016 3:37:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-01
Date/Time Received: 7/7/2016 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	239	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	1.9	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 14:16	6070215	rnb
Fluoride	0.39	0.30	0.02	mg/L	EPA 300.0		1	07/11/16 10:48	07/11/16 14:16	6070215	rnb
Sulfate	130	5.0	0.26	mg/L	EPA 300.0		5	07/12/16 11:00	07/12/16 20:03	6070215	RLC
Metals, Total											
Antimony	0.0013	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Arsenic	0.0063	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Barium	0.117	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Beryllium	0.0002	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Boron	0.0675	0.100	0.0044	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Calcium	29.1	2.50	0.0628	mg/L	EPA 6020B		5	07/08/16 08:40	07/12/16 17:38	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Cobalt	0.0278	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Lead	0.0001	0.0050	0.00008	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Thallium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Lithium	0.0386	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 13:47	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:14	6070188	CSW

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 14, 2016

Report No.: AZG0137
Client ID: GWC-6
Date/Time Sampled: 7/6/2016 1:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-02
Date/Time Received: 7/7/2016 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	280	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 14:37	6070215	rnb
Fluoride	0.28	0.30	0.02	mg/L	EPA 300.0	J	1	07/11/16 10:48	07/11/16 14:37	6070215	rnb
Sulfate	110	5.0	0.26	mg/L	EPA 300.0		5	07/12/16 11:00	07/12/16 20:24	6070215	RLC
Metals, Total											
Antimony	0.0005	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Barium	0.171	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Boron	0.0393	0.100	0.0044	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Calcium	59.5	5.00	0.126	mg/L	EPA 6020B		10	07/08/16 08:40	07/12/16 17:43	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Lithium	0.0169	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 13:52	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:16	6070188	CSW

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 14, 2016

Report No.: AZG0137
Client ID: GWC-5
Date/Time Sampled: 7/6/2016 8:50:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-03
Date/Time Received: 7/7/2016 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	346	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	2.9	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 14:58	6070215	rnb
Fluoride	0.29	0.30	0.02	mg/L	EPA 300.0	J	1	07/11/16 10:48	07/11/16 14:58	6070215	rnb
Sulfate	74	5.0	0.26	mg/L	EPA 300.0		5	07/12/16 11:00	07/12/16 20:44	6070215	RLC
Metals, Total											
Antimony	0.0004	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Barium	0.104	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Boron	0.0628	0.100	0.0044	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Calcium	66.9	5.00	0.126	mg/L	EPA 6020B		10	07/08/16 08:40	07/12/16 17:48	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Lithium	0.0281	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 13:57	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:25	6070188	CSW

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Attention: Mr. Joju Abraham

July 14, 2016

Report No.: AZG0137
Client ID: GWC-19
Date/Time Sampled: 7/6/2016 3:06:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-04
Date/Time Received: 7/7/2016 9:55:00AM

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	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	2.1	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 15:18	6070215	rnb
Fluoride	0.21	0.30	0.02	mg/L	EPA 300.0	J	1	07/11/16 10:48	07/11/16 15:18	6070215	rnb
Sulfate	17	1.0	0.05	mg/L	EPA 300.0		1	07/11/16 10:48	07/11/16 15:18	6070215	rnb
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Barium	0.152	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Boron	0.184	0.100	0.0044	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Calcium	45.8	5.00	0.126	mg/L	EPA 6020B		10	07/08/16 08:40	07/12/16 17:53	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Lithium	0.0179	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:02	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:27	6070188	CSW

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July 14, 2016

Report No.: AZG0137
Client ID: Dup-1
Date/Time Sampled: 7/6/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-05
Date/Time Received: 7/7/2016 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	243	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	2.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 15:39	6070215	rnb
Fluoride	0.14	0.30	0.02	mg/L	EPA 300.0	J	1	07/11/16 10:48	07/11/16 15:39	6070215	rnb
Sulfate	17	1.0	0.05	mg/L	EPA 300.0		1	07/11/16 10:48	07/11/16 15:39	6070215	rnb
Metals, Total											
Antimony	0.0002	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Barium	0.158	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Boron	0.182	0.100	0.0044	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Calcium	47.3	5.00	0.126	mg/L	EPA 6020B		10	07/08/16 08:40	07/12/16 17:58	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Lithium	0.0178	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:07	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:30	6070188	CSW

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July 14, 2016

Report No.: AZG0137
Client ID: GWC-10
Date/Time Sampled: 7/6/2016 1:38:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-06
Date/Time Received: 7/7/2016 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	135	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 16:00	6070215	rnb
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	07/11/16 10:48	07/11/16 16:00	6070215	rnb
Sulfate	10	1.0	0.05	mg/L	EPA 300.0		1	07/11/16 10:48	07/11/16 16:00	6070215	rnb
Metals, Total											
Antimony	0.0005	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Barium	0.101	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Boron	0.0308	0.100	0.0044	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Calcium	32.3	2.50	0.0628	mg/L	EPA 6020B		5	07/08/16 08:40	07/12/16 18:03	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Lithium	0.0090	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:32	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:32	6070188	CSW

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Atlanta GA, 30339

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July 14, 2016

Report No.: AZG0137
Client ID: GWA-11
Date/Time Sampled: 7/6/2016 11:05:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-07
Date/Time Received: 7/7/2016 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	98	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 17:02	6070215	rnb
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	07/11/16 10:48	07/11/16 17:02	6070215	rnb
Sulfate	12	1.0	0.05	mg/L	EPA 300.0		1	07/11/16 10:48	07/11/16 17:02	6070215	rnb
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Barium	0.0344	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Boron	0.0373	0.100	0.0044	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Calcium	20.6	2.50	0.0628	mg/L	EPA 6020B		5	07/08/16 08:40	07/12/16 18:08	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Cobalt	0.0009	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Lithium	0.0100	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:37	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:34	6070188	CSW

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July 14, 2016

Report No.: AZG0137
Client ID: GWA-4
Date/Time Sampled: 7/6/2016 9:45:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-08
Date/Time Received: 7/7/2016 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	646	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	5.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 17:22	6070215	rnb
Fluoride	0.22	0.30	0.02	mg/L	EPA 300.0	J	1	07/11/16 10:48	07/11/16 17:22	6070215	rnb
Sulfate	280	10	0.51	mg/L	EPA 300.0		10	07/12/16 11:00	07/12/16 21:05	6070215	RLC
Metals, Total											
Antimony	0.0003	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Barium	0.0475	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Boron	0.111	0.100	0.0044	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Calcium	109	10.0	0.251	mg/L	EPA 6020B		20	07/08/16 08:40	07/12/16 18:32	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Cobalt	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Lithium	0.0235	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:42	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:37	6070188	CSW

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 14, 2016

Report No.: AZG0137
Client ID: GWC-8
Date/Time Sampled: 7/6/2016 2:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-09
Date/Time Received: 7/7/2016 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	218	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 19:06	6070215	rnb
Fluoride	0.15	0.30	0.02	mg/L	EPA 300.0	J	1	07/11/16 10:48	07/11/16 19:06	6070215	rnb
Sulfate	36	1.0	0.05	mg/L	EPA 300.0		1	07/11/16 10:48	07/11/16 19:06	6070215	rnb
Metals, Total											
Antimony	0.0002	0.0030	0.0002	mg/L	EPA 6020B	B-01, J	1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Barium	0.0935	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Boron	0.0231	0.100	0.0044	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Calcium	56.8	5.00	0.126	mg/L	EPA 6020B		10	07/08/16 08:40	07/12/16 18:37	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Molybdenum	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Lithium	0.0077	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:47	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:39	6070188	CSW

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 14, 2016

Report No.: AZG0137
Client ID: GWC-9
Date/Time Sampled: 7/6/2016 4:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0137-10
Date/Time Received: 7/7/2016 9:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	204	25	10	mg/L	SM 2540 C		1	07/08/16 12:24	07/08/16 12:24	6070155	JPT
Inorganic Anions											
Chloride	1.3	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/11/16 10:48	07/11/16 19:26	6070215	rnb
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	07/11/16 10:48	07/11/16 19:26	6070215	rnb
Sulfate	69	5.0	0.26	mg/L	EPA 300.0		5	07/12/16 11:00	07/12/16 21:26	6070215	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Barium	0.0646	0.0100	0.0003	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Boron	0.0171	0.100	0.0044	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Calcium	32.8	2.50	0.0628	mg/L	EPA 6020B		5	07/08/16 08:40	07/12/16 15:12	6070158	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Cobalt	0.0004	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Lithium	0.0151	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/08/16 08:40	07/12/16 14:52	6070158	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/11/16 09:40	07/11/16 15:41	6070188	CSW

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July 14, 2016

Report No.: AZG0137

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070155 - SM 2540 C											
Blank (6070155-BLK1)						Prepared & Analyzed: 07/08/16					
Total Dissolved Solids	ND	10	10	mg/L							
LCS (6070155-BS1)						Prepared & Analyzed: 07/08/16					
Total Dissolved Solids	359	10	10	mg/L	400.00		90	84-108			
Duplicate (6070155-DUP1)		**Source: AZG0065-02**				Prepared & Analyzed: 07/08/16					
Total Dissolved Solids	215	10	10	mg/L		218			1	10	
Duplicate (6070155-DUP2)		**Source: AZG0137-10**				Prepared & Analyzed: 07/08/16					
Total Dissolved Solids	185	10	10	mg/L		204			10	10	

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Report No.: AZG0137

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070215 - EPA 300.0											
Blank (6070215-BLK1)						Prepared & Analyzed: 07/11/16					
Chloride	0.07	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6070215-BS1)						Prepared & Analyzed: 07/11/16					
Chloride	9.93	0.25	0.01	mg/L	10.010		99	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.010		103	90-110			
Sulfate	10.1	1.0	0.05	mg/L	10.010		101	90-110			
Matrix Spike (6070215-MS1)		**Source: AZG0137-06**				Prepared & Analyzed: 07/11/16					
Chloride	10.6	0.25	0.01	mg/L	10.010	1.54	91	90-110			
Fluoride	9.95	0.30	0.02	mg/L	10.010	0.09	98	90-110			
Sulfate	19.0	1.0	0.05	mg/L	10.010	10.4	86	90-110			QM-05
Matrix Spike (6070215-MS2)		**Source: AZG0161-03**				Prepared & Analyzed: 07/11/16					
Chloride	11.7	0.25	0.01	mg/L	10.010	2.46	93	90-110			
Fluoride	10.2	0.30	0.02	mg/L	10.010	ND	102	90-110			
Sulfate	11.4	1.0	0.05	mg/L	10.010	1.82	96	90-110			
Matrix Spike Dup (6070215-MSD1)		**Source: AZG0137-06**				Prepared & Analyzed: 07/11/16					
Chloride	10.9	0.25	0.01	mg/L	10.010	1.54	94	90-110	3	15	
Fluoride	10.2	0.30	0.02	mg/L	10.010	0.09	101	90-110	3	15	
Sulfate	19.2	1.0	0.05	mg/L	10.010	10.4	89	90-110	1	15	QM-05

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070158 - EPA 3005A											
Blank (6070158-BLK1)						Prepared: 07/08/16 Analyzed: 07/12/16					
Antimony	0.0016	0.0030	0.0002	mg/L							J
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	0.0050	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0050	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0050	0.0002	mg/L							
Thallium	0.00006	0.0010	0.00006	mg/L							J
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 (6070158-BS1)						Prepared: 07/08/16 Analyzed: 07/12/16					
Antimony	0.114	0.0030	0.0002	mg/L	0.10000		114	80-120			
Arsenic	0.101	0.0050	0.0007	mg/L	0.10000		101	80-120			
Barium	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Beryllium	0.103	0.0030	0.00009	mg/L	0.10000		103	80-120			
Boron	1.05	0.100	0.0044	mg/L	1.0000		105	80-120			
Cadmium	0.100	0.0010	0.0001	mg/L	0.10000		100	80-120			
Calcium	1.05	0.500	0.0126	mg/L	1.0000		105	80-120			
Chromium	0.0974	0.0100	0.0004	mg/L	0.10000		97	80-120			
Cobalt	0.0982	0.0100	0.0003	mg/L	0.10000		98	80-120			
Copper	0.0965	0.0050	0.0004	mg/L	0.10000		96	80-120			
Lead	0.0980	0.0050	0.00008	mg/L	0.10000		98	80-120			
Molybdenum	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Nickel	0.0977	0.0050	0.0005	mg/L	0.10000		98	80-120			
Selenium	0.0967	0.0100	0.0009	mg/L	0.10000		97	80-120			
Silver	0.104	0.0050	0.0002	mg/L	0.10000		104	80-120			
Thallium	0.0994	0.0010	0.00006	mg/L	0.10000		99	80-120			
Vanadium	0.0988	0.0100	0.0016	mg/L	0.10000		99	80-120			
Zinc	0.0999	0.0100	0.0013	mg/L	0.10000		100	80-120			
Lithium	0.0978	0.0500	0.0012	mg/L	0.10000		98	80-120			

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July 14, 2016

Report No.: AZG0137

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070158 - EPA 3005A											
Matrix Spike (6070158-MS1)		**Source: AZG0142-01**			Prepared: 07/08/16 Analyzed: 07/12/16						
Antimony	0.111	0.0030	0.0002	mg/L	0.10000	ND	111	75-125			
Arsenic	0.100	0.0050	0.0007	mg/L	0.10000	0.0008	99	75-125			
Barium	0.125	0.0100	0.0003	mg/L	0.10000	0.0249	100	75-125			
Beryllium	0.104	0.0030	0.00009	mg/L	0.10000	0.0002	103	75-125			
Boron	0.982	0.100	0.0044	mg/L	1.0000	0.0059	98	75-125			
Cadmium	0.0974	0.0010	0.0001	mg/L	0.10000	0.0002	97	75-125			
Calcium	28.0	2.50	0.0628	mg/L	1.0000	29.2	NR	75-125			QM-02
Chromium	0.0984	0.0100	0.0004	mg/L	0.10000	0.0005	98	75-125			
Cobalt	0.0970	0.0100	0.0003	mg/L	0.10000	ND	97	75-125			
Copper	0.0945	0.0050	0.0004	mg/L	0.10000	ND	95	75-125			
Lead	0.0972	0.0050	0.00008	mg/L	0.10000	0.0004	97	75-125			
Molybdenum	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Nickel	0.0970	0.0050	0.0005	mg/L	0.10000	0.0007	96	75-125			
Selenium	0.0952	0.0100	0.0009	mg/L	0.10000	ND	95	75-125			
Silver	0.104	0.0050	0.0002	mg/L	0.10000	ND	104	75-125			
Thallium	0.0995	0.0010	0.00006	mg/L	0.10000	ND	99	75-125			
Vanadium	0.101	0.0100	0.0016	mg/L	0.10000	ND	101	75-125			
Zinc	0.150	0.0100	0.0013	mg/L	0.10000	0.0532	97	75-125			
Lithium	0.0984	0.0500	0.0012	mg/L	0.10000	ND	98	75-125			
Matrix Spike Dup (6070158-MSD1)		**Source: AZG0142-01**			Prepared: 07/08/16 Analyzed: 07/12/16						
Antimony	0.110	0.0030	0.0002	mg/L	0.10000	ND	110	75-125	1	20	
Arsenic	0.102	0.0050	0.0007	mg/L	0.10000	0.0008	101	75-125	2	20	
Barium	0.123	0.0100	0.0003	mg/L	0.10000	0.0249	98	75-125	2	20	
Beryllium	0.101	0.0030	0.00009	mg/L	0.10000	0.0002	100	75-125	3	20	
Boron	1.03	0.100	0.0044	mg/L	1.0000	0.0059	102	75-125	4	20	
Cadmium	0.0970	0.0010	0.0001	mg/L	0.10000	0.0002	97	75-125	0.5	20	
Calcium	27.8	2.50	0.0628	mg/L	1.0000	29.2	NR	75-125	0.6	20	QM-02
Chromium	0.0982	0.0100	0.0004	mg/L	0.10000	0.0005	98	75-125	0.2	20	
Cobalt	0.0983	0.0100	0.0003	mg/L	0.10000	ND	98	75-125	1	20	
Copper	0.0989	0.0050	0.0004	mg/L	0.10000	ND	99	75-125	5	20	
Lead	0.0983	0.0050	0.00008	mg/L	0.10000	0.0004	98	75-125	1	20	
Molybdenum	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125	0.06	20	
Nickel	0.0985	0.0050	0.0005	mg/L	0.10000	0.0007	98	75-125	2	20	
Selenium	0.101	0.0100	0.0009	mg/L	0.10000	ND	101	75-125	6	20	
Silver	0.101	0.0050	0.0002	mg/L	0.10000	ND	101	75-125	3	20	
Thallium	0.0981	0.0010	0.00006	mg/L	0.10000	ND	98	75-125	1	20	
Vanadium	0.101	0.0100	0.0016	mg/L	0.10000	ND	101	75-125	0.5	20	
Zinc	0.154	0.0100	0.0013	mg/L	0.10000	0.0532	101	75-125	3	20	
Lithium	0.0970	0.0500	0.0012	mg/L	0.10000	ND	97	75-125	1	20	

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070158 - EPA 3005A											
Post Spike (6070158-PS1)			**Source: AZG0142-01**			Prepared: 07/08/16 Analyzed: 07/12/16					
Antimony	109			ug/L	100.00	0.215	109	80-120			
Arsenic	102			ug/L	100.00	0.847	101	80-120			
Barium	124			ug/L	100.00	24.9	99	80-120			
Beryllium	99.4			ug/L	100.00	0.153	99	80-120			
Boron	1040			ug/L	1000.0	5.90	103	80-120			
Cadmium	98.2			ug/L	100.00	0.204	98	80-120			
Calcium	28900			ug/L	1000.0	29200	NR	80-120			QM-02
Chromium	96.9			ug/L	100.00	0.498	96	80-120			
Cobalt	97.9			ug/L	100.00	0.215	98	80-120			
Copper	97.4			ug/L	100.00	0.385	97	80-120			
Lead	98.6			ug/L	100.00	0.380	98	80-120			
Molybdenum	108			ug/L	100.00	0.0995	108	80-120			
Nickel	100			ug/L	100.00	0.696	99	80-120			
Selenium	98.2			ug/L	100.00	0.399	98	80-120			
Silver	107			ug/L	100.00	0.0070	107	80-120			
Thallium	102			ug/L	100.00	0.0165	102	80-120			
Vanadium	101			ug/L	100.00	0.912	100	80-120			
Zinc	153			ug/L	100.00	53.2	99	80-120			
Lithium	92.0			ug/L	100.00	0.663	91	80-120			
Batch 6070188 - EPA 7470A											
Blank (6070188-BLK1)						Prepared & Analyzed: 07/11/16					
Mercury	ND	0.00050	0.00013	mg/L							
LCS (6070188-BS1)						Prepared & Analyzed: 07/11/16					
Mercury	0.00258	0.00050	0.00013	mg/L	2.5000E-3		103	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070188 - EPA 7470A											
Matrix Spike (6070188-MS1)			**Source: AZG0065-01**			Prepared & Analyzed: 07/11/16					
Mercury	0.00246	0.00050	0.00013	mg/L	2.5000E-3	ND	99	75-125			
Matrix Spike Dup (6070188-MSD1)			**Source: AZG0065-01**			Prepared & Analyzed: 07/11/16					
Mercury	0.00263	0.00050	0.00013	mg/L	2.5000E-3	ND	105	75-125	6	20	
Post Spike (6070188-PS1)			**Source: AZG0065-01**			Prepared & Analyzed: 07/11/16					
Mercury	1.66			ug/L	1.6667	-0.0178	100	80-120			

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July 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

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.

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY — Work Order No. AZG0137 — Reviewed By:

[11] Page 1 of 1

Sample Shipment Date:[8] 7/7/2016 — [X] [12] Standard Turnaround Time
Sample Received Date:[9]
Sampled By:[10] T. Eckerdt (TE) A. Shoreditz (AS) Myles Page (MP) M. Thomas (MT) — [ ] # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment)

Company:[1] Southern Company Services
Report To Address:[2] Joju Abraham, Heath McCorkle, Maria Padilla
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax:[3] 404-506-7239
Contact:[4] Joju Abraham
Project Location:[5] Plant Hammond
Account Number:[6]
Special Instructions:[7] Huffaker Rd GW CCR

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

PRESERVATIVE [20]: HNO3 N | ICE I | HNO3 N

ANALYSIS REQUESTED [21]: Metals App. III & IV EPA6020 + EPA7470 | Cl, F, SO4 EPA300 | TDS SM2540C | Ra-226 + Ra-228 9315 + 9320

Sample Type Key: 22 — G-Grab O-Other C-Composite

Matrix Key: 23 — O-Oil S-Solid SL-Sludge W-Water SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water

Preservative Key: 24 — H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice O-Unpreserved

LAB USE ONLY [13] LAB ID	Sample Number [14]	Collection [15] Date	Collection [15] Time	Sample Description [16]	[17] Sample Type	[18] Matrix	[19] No. of Containers	Metals App. III & IV	Cl, F, SO4	TDS	Ra-226 + Ra-228					LAB USE ONLY [25] Comments
	GWC-7	7/6/16	15:37		G	GW	3	1	1	1						1
	GWC-6	7/6/16	13:50		G	GW	3	1	1	1						2
	GWC-5	7/6/16	08:50		G	GW	3	1	1	1						3
	GWC-19	7/6/16	15:06		G	GW	3	1	1	1						4
	DUP-1	7/6/16	—		G	GW	3	1	1	1						5
	GWC-10	7/6/16	13:38		G	GW	3	1	1	1						6
	GWA-11	7/6/16	11:05		G	GW	3	1	1	1						7
	GWA-4	7/6/16	09:45		G	GW	3	1	1	1						8
	GWC-8	7/6/16	14:25		G	GW	3	1	1	1						9
	GWC-9	7/6/16	16:35		G	GW	3	1	1	1						10

LAB USE ONLY: Sample Receipt Information [28]

Relinquished by:[26]	Date/Time 7/7/2016 09:55	Received by: Charles Heath 7/7/16 0955 T 2°C Ice Present No Seal
Received by:[27]	Date/Time	
Relinquished by:	Date/Time	
Received by:	Date/Time	

PACE ANALYTICAL SERVICES, INC.

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

LOG-IN CHECKLIST **Printed: 7/14/2016 1:49:57PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 07/07/16 09:55

Work Order: AZG0137
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 10 **#Containers:** 30

Minimum Temp(C): 2.0 **Maximum Temp(C):** 2.0 **Custody Seal(s) Used:** No

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:

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

August 09, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 30189098

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on July 08, 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 reflect the results for 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
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: Plant Hammond
Pace Project No.: 30189098

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
Pace Project No.: 30189098

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30189098001	**GWC-7**	Water	07/06/16 15:37	07/08/16 09:30
30189098002	**GWC-6**	Water	07/06/16 13:50	07/08/16 09:30
30189098003	**GWC-5**	Water	07/06/16 08:50	07/08/16 09:30
30189098004	**GWC-19**	Water	07/06/16 15:06	07/08/16 09:30
30189098005	**DUP-1**	Water	07/06/16 00:01	07/08/16 09:30
30189098006	**GWC-10**	Water	07/06/16 13:38	07/08/16 09:30
30189098007	**GWA-11**	Water	07/06/16 11:05	07/08/16 09:30
30189098008	**GWA-4**	Water	07/06/16 09:45	07/08/16 09:30
30189098009	**GWC-8**	Water	07/06/16 14:25	07/08/16 09:30
30189098010	**GWC-9**	Water	07/06/16 16:35	07/08/16 09:30

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

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30189098

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30189098001	**GWC-7**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30189098002	**GWC-6**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30189098003	**GWC-5**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30189098004	**GWC-19**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30189098005	**DUP-1**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30189098006	**GWC-10**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30189098007	**GWA-11**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30189098008	**GWA-4**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30189098009	**GWC-8**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30189098010	**GWC-9**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30189098

Sample: GWC-7 **Lab ID: 30189098001** Collected: 07/06/16 15:37 Received: 07/08/16 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	**0.226 ± 0.160 (0.252) C:104% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.137 ± 0.404 (0.908) C:72% T:74%**	pCi/L	08/01/16 16:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.363 ± 0.564 (1.16)**	pCi/L	08/05/16 15:53	7440-14-4	

Sample: GWC-6 **Lab ID: 30189098002** Collected: 07/06/16 13:50 Received: 07/08/16 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	**-0.0872 ± 0.109 (0.367) C:92% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.394 ± 0.445 (0.935) C:78% T:75%**	pCi/L	08/01/16 16:28	15262-20-1	
Total Radium	Total Radium Calculation	**0.307 ± 0.554 (1.30)**	pCi/L	08/05/16 15:53	7440-14-4	

Sample: GWC-5 **Lab ID: 30189098003** Collected: 07/06/16 08:50 Received: 07/08/16 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	**-0.0244 ± 0.139 (0.395) C:85% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.0471 ± 0.370 (0.851) C:75% T:83%**	pCi/L	08/01/16 16:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.0227 ± 0.509 (1.25)**	pCi/L	08/05/16 15:53	7440-14-4	

Sample: GWC-19 **Lab ID: 30189098004** Collected: 07/06/16 15:06 Received: 07/08/16 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	**0.104 ± 0.141 (0.297) C:86% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.592 ± 0.423 (0.824) C:75% T:82%**	pCi/L	08/01/16 16:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.696 ± 0.564 (1.12)**	pCi/L	08/05/16 15:53	7440-14-4	

Sample: DUP-1 **Lab ID: 30189098005** Collected: 07/06/16 00:01 Received: 07/08/16 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	**-0.0836 ± 0.136 (0.419) C:85% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**-0.0466 ± 0.369 (0.868) C:74% T:83%**	pCi/L	08/01/16 16:29	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30189098

Sample: DUP-1 **Lab ID: 30189098005** Collected: 07/06/16 00:01 Received: 07/08/16 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.000 ± 0.505 (1.29)**	pCi/L	08/05/16 15:53	7440-14-4	

Sample: GWC-10 **Lab ID: 30189098006** Collected: 07/06/16 13:38 Received: 07/08/16 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	**0.0590 ± 0.140 (0.333) C:84% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.376 ± 0.380 (0.785) C:75% T:81%**	pCi/L	08/01/16 16:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.435 ± 0.520 (1.12)**	pCi/L	08/05/16 15:53	7440-14-4	

Sample: GWA-11 **Lab ID: 30189098007** Collected: 07/06/16 11:05 Received: 07/08/16 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	**-0.0125 ± 0.121 (0.345) C:88% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.196 ± 0.320 (0.696) C:77% T:83%**	pCi/L	08/01/16 16:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.184 ± 0.441 (1.04)**	pCi/L	08/05/16 15:53	7440-14-4	

Sample: GWA-4 **Lab ID: 30189098008** Collected: 07/06/16 09:45 Received: 07/08/16 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	**0.0421 ± 0.127 (0.315) C:84% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.374 ± 0.454 (0.963) C:72% T:76%**	pCi/L	08/01/16 16:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.416 ± 0.581 (1.28)**	pCi/L	08/05/16 15:53	7440-14-4	

Sample: GWC-8 **Lab ID: 30189098009** Collected: 07/06/16 14:25 Received: 07/08/16 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	**-0.00475 ± 0.145 (0.400) C:82% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.218 ± 0.376 (0.820) C:72% T:77%**	pCi/L	08/01/16 16:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.213 ± 0.521 (1.22)**	pCi/L	08/05/16 15:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30189098

Sample: GWC-9 **Lab ID: 30189098010** Collected: 07/06/16 16:35 Received: 07/08/16 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	**0.0494 ± 0.138 (0.337) C:86% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**-0.297 ± 0.381 (0.946) C:71% T:76%**	pCi/L	08/01/16 16:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.000 ± 0.519 (1.28)**	pCi/L	08/05/16 15:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30189098

QC Batch: 227760 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30189098001, 30189098002, 30189098003, 30189098004, 30189098005, 30189098006, 30189098007, 30189098008, 30189098009, 30189098010

METHOD BLANK: 1115857 Matrix: Water
Associated Lab Samples: 30189098001, 30189098002, 30189098003, 30189098004, 30189098005, 30189098006, 30189098007, 30189098008, 30189098009, 30189098010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0768 ± 0.0497 (0.266) C:90% T:NA	pCi/L	07/31/16 10:04	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30189098

QC Batch: 227761 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30189098001, 30189098002, 30189098003, 30189098004, 30189098005, 30189098006, 30189098007, 30189098008, 30189098009, 30189098010

METHOD BLANK: 1115859 Matrix: Water
Associated Lab Samples: 30189098001, 30189098002, 30189098003, 30189098004, 30189098005, 30189098006, 30189098007, 30189098008, 30189098009, 30189098010

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	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30189098

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.

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

WO#: 30189098

Sample Shipment Date:[8] 7/7/2016
Sample Received Date:[9]
Sampled By:[10] T. Wardell (TW) A. Shoreditz (AS) Myles Rogers (MR) M. Thomas (MT)

[X] [12] Standard Turnaround Time
[ ] # of Business Days (Rush) (Must be cleared through Env. Lab. Prior to shipment)

Company:[1] Southern Company Services
Report To Address:[2] Joju Abraham, Heath McCorkle, Maria Padilla
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
Phone/Fax:[3] 404-506-7239
Contact:[4] Joju Abraham
Project Location:[5] Plant Hammond
Account Number:[6]
Special Instructions:[7] Huffaker Rd GW CCR

Signature

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

LAB USE ONLY [13] LAB ID	Sample Number [14]	Collection [15] Date	Collection [15] Time	Sample Description [16]	[17] Sample Type	[18] Matrix	[19] No. of Containers	PRESERVATIVE [20] HNO3	PRESERVATIVE [20] ICE	PRESERVATIVE [20] HNO3	ANALYSIS REQUESTED [21] Metals App. III & IV EPA6020 + EPA7470	Cl, F, SO4 EPA300	TDS SM2540C	Ra-226 + Ra-228 9315 + 9320	LAB USE ONLY [25] Comments
	GWC-7	7/6/16	15:37		G	GW	3	N	I	N	1	1	1	1	001
	GWC-6	7/6/16	13:50		G	GW	3				1	1	1	1	002
	GWC-5	7/6/16	08:50		G	GW	3				1	1	1	1	003
	GWC-19	7/6/16	15:06		G	GW	3				1	1	1	1	004
	DUP-1	7/6/16	—		G	GW	3				1	1	1	1	005
	GWC-10	7/6/16	13:38		G	GW	3				1	1	1	1	006
	GWA-11	7/6/16	11:05		G	GW	3				1	1	1	1	007
	GWA-4	7/6/16	09:45		G	GW	3				1	1	1	1	008
	GWC-8	7/6/16	14:25		G	GW	3				1	1	1	1	009
	GWC-9	7/6/16	16:35		G	GW	3				1	1	1	1	010

Sample Type Key: [22] G-Grab O-Other C-Composite

Matrix Key: [23] O-Oil S-Solid SL-Sludge W-Wipe SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water

Preservative Key: [24] H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide SB-Sodium Bisulfate P-Phosphoric Acid ST-Sodium Thiosulfate -Hoe U-Unpreserved

Relinquished by:[26]		Date/Time	7/7/2016 09:55
Received by:[27]	Ashley Rose/Pace	Date/Time	7-8-16/0930
Relinquished by:		Date/Time	
Received by:		Date/Time	

LAB USE ONLY, Sample Receipt Information [28]: Chandra Hunt 7/7/16 0955 T 2°C Ice Present No Seal

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

30189098

Client Name: GA Power Project #

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

Tracking #: 6812 5097 5654

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

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: AMR 7-8-16

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

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)

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JLW
Date:	7/28/2016
Worklist:	30562
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1115859
MB concentration:	0.173
M/B Counting Uncertainty:	0.362
MB MDC:	0.804
MB Numerical Performance Indicator:	0.94
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS30562	**LCSD30562**
Count Date:	8/1/2016	8/1/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	26.051	26.051
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.807	0.801
Target Conc. (pCi/L, g, F):	6.460	6.501
Uncertainty (Calculated):	0.465	0.468
Result (pCi/L, g, F):	6.058	6.086
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.728	0.749
Numerical Performance Indicator:	-0.91	-0.92
Percent Recovery:	93.78%	93.62%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

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

Duplicate Sample Assessment		
Sample I.D.:	LCS30562	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30562	
Sample Result (pCi/L, g, F):	6.058	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.728	
Sample Duplicate Result (pCi/L, g, F):	6.086	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.749	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.052	
Duplicate RPD:	0.46%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

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

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

Comments:

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	WRR
Date:	7/28/2016
Worklist:	30561
Matrix:	DW

Method Blank Assessment

MB Sample ID	1115857
MB concentration:	-0.077
M/B Counting Uncertainty:	0.048
MB MDC:	0.266
MB Numerical Performance Indicator:	-3.11
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS30561	LCSD30561
Count Date:	7/31/2016	7/31/2016
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):	0.506	0.506
Target Conc. (pCi/L, g, F):	9.441	9.443
Uncertainty (Calculated):	0.444	0.444
Result (pCi/L, g, F):	7.856	7.620
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.807	0.764
Numerical Performance Indicator:	-3.37	-4.04
Percent Recovery:	83.20%	80.69%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	LCS30561
Duplicate Sample I.D.	LCSD30561
Sample Result (pCi/L, g, F):	7.856
Sample Result Counting Uncertainty (pCi/L, g, F):	0.807
Sample Duplicate Result (pCi/L, g, F):	7.620
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.764
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	0.416
Duplicate RPD:	3.05%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

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

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

PACE ANALYTICAL SERVICES, INC.

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

Laboratory Report

Prepared For:

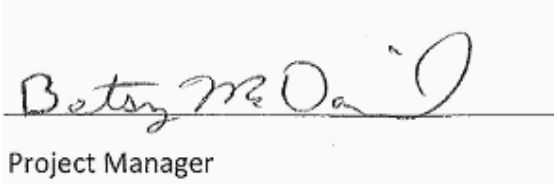
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZG0163**
July 15, 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

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FB-1	AZG0163-01	DI Water	07/07/16 13:30	07/08/16 08:35
FB-2	AZG0163-02	DI Water	07/07/16 13:35	07/08/16 08:35
FERB-1	AZG0163-03	DI Water	07/07/16 13:55	07/08/16 08:35
FERB-2	AZG0163-04	DI Water	07/07/16 14:05	07/08/16 08:35
GWC-23	AZG0163-05	Ground Water	07/07/16 13:25	07/08/16 08:35
GWC-20	AZG0163-06	Ground Water	07/07/16 12:10	07/08/16 08:35
GWC-18	AZG0163-07	Ground Water	07/07/16 10:00	07/08/16 08:35
Dup-2	AZG0163-08	Ground Water	07/07/16 00:00	07/08/16 08:35
GWC-21	AZG0163-09	Ground Water	07/07/16 11:04	07/08/16 08:35
GWC-22	AZG0163-10	Ground Water	07/07/16 12:30	07/08/16 08:35

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: FB-1
Date/Time Sampled: 7/7/2016 1:30:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZG0163-01
Date/Time Received: 7/8/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	B-01, J	1	07/13/16 10:06	07/13/16 14:11	6070266	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 14:11	6070266	RLC
Sulfate	0.07	1.0	0.05	mg/L	EPA 300.0	J	1	07/13/16 10:06	07/13/16 14:11	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Calcium	ND	0.500	0.0126	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:08	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 16:41	6070223	CSW

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: FB-2
Date/Time Sampled: 7/7/2016 1:35:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZG0163-02
Date/Time Received: 7/8/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	B-01, J	1	07/13/16 10:06	07/13/16 14:32	6070266	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 14:32	6070266	RLC
Sulfate	0.07	1.0	0.05	mg/L	EPA 300.0	J	1	07/13/16 10:06	07/13/16 14:32	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Calcium	ND	0.500	0.0126	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:23	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 16:44	6070223	CSW

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: FERB-1
Date/Time Sampled: 7/7/2016 1:55:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZG0163-03
Date/Time Received: 7/8/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	0.05	0.25	0.01	mg/L	EPA 300.0	B-01, J	1	07/13/16 10:06	07/13/16 14:54	6070266	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 14:54	6070266	RLC
Sulfate	0.16	1.0	0.05	mg/L	EPA 300.0	J	1	07/13/16 10:06	07/13/16 14:54	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Calcium	0.0245	0.500	0.0126	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Lead	0.0001	0.0050	0.00008	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:28	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 16:46	6070223	CSW

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: FERB-2
Date/Time Sampled: 7/7/2016 2:05:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZG0163-04
Date/Time Received: 7/8/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	0.05	0.25	0.01	mg/L	EPA 300.0	B-01, J	1	07/13/16 10:06	07/13/16 15:15	6070266	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 15:15	6070266	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 15:15	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Boron	ND	0.100	0.0044	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Calcium	0.0160	0.500	0.0126	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:33	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 16:48	6070223	CSW

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: GWC-23
Date/Time Sampled: 7/7/2016 1:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0163-05
Date/Time Received: 7/8/2016 8:35:00AM

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	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/13/16 10:06	07/13/16 15:36	6070266	RLC
Fluoride	0.13	0.30	0.02	mg/L	EPA 300.0	J	1	07/13/16 10:06	07/13/16 15:36	6070266	RLC
Sulfate	5.7	1.0	0.05	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 15:36	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Barium	0.0766	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Boron	0.0183	0.100	0.0044	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Calcium	33.5	2.50	0.0628	mg/L	EPA 6020B		5	07/11/16 08:25	07/13/16 16:11	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Lithium	0.0154	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:38	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 16:58	6070223	CSW

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: GWC-20
Date/Time Sampled: 7/7/2016 12:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0163-06
Date/Time Received: 7/8/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	212	25	10	mg/L	SM 2540 C		1	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/13/16 10:06	07/13/16 16:40	6070266	RLC
Fluoride	0.16	0.30	0.02	mg/L	EPA 300.0	J	1	07/13/16 10:06	07/13/16 16:40	6070266	RLC
Sulfate	31	1.0	0.05	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 16:40	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Barium	0.124	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Boron	0.0169	0.100	0.0044	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Calcium	50.9	5.00	0.126	mg/L	EPA 6020B		10	07/11/16 08:25	07/13/16 16:16	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Lithium	0.0097	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:43	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 17:01	6070223	CSW

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: GWC-18
Date/Time Sampled: 7/7/2016 10:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0163-07
Date/Time Received: 7/8/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	181	25	10	mg/L	SM 2540 C		1	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/13/16 10:06	07/13/16 17:01	6070266	RLC
Fluoride	0.20	0.30	0.02	mg/L	EPA 300.0	J	1	07/13/16 10:06	07/13/16 17:01	6070266	RLC
Sulfate	9.6	1.0	0.05	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 17:01	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Barium	0.0747	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Boron	0.120	0.100	0.0044	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Calcium	36.8	2.50	0.0628	mg/L	EPA 6020B		5	07/11/16 08:25	07/13/16 16:21	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Molybdenum	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Lithium	0.0136	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:47	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 17:03	6070223	CSW

PACE ANALYTICAL SERVICES, INC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: Dup-2
Date/Time Sampled: 7/7/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0163-08
Date/Time Received: 7/8/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	181	25	10	mg/L	SM 2540 C		1	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/13/16 10:06	07/13/16 17:22	6070266	RLC
Fluoride	0.19	0.30	0.02	mg/L	EPA 300.0	J	1	07/13/16 10:06	07/13/16 17:22	6070266	RLC
Sulfate	9.7	1.0	0.05	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 17:22	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Barium	0.0773	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Boron	0.129	0.100	0.0044	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Calcium	36.7	2.50	0.0628	mg/L	EPA 6020B		5	07/11/16 08:25	07/13/16 16:26	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Molybdenum	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Lithium	0.0143	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:52	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 17:05	6070223	CSW

PACE ANALYTICAL SERVICES, INC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: GWC-21
Date/Time Sampled: 7/7/2016 11:04:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0163-09
Date/Time Received: 7/8/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	151	25	10	mg/L	SM 2540 C		1	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	2.8	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/13/16 10:06	07/13/16 19:08	6070266	RLC
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	07/13/16 10:06	07/13/16 19:08	6070266	RLC
Sulfate	31	1.0	0.05	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 19:08	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Arsenic	0.0012	0.0050	0.0007	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Barium	0.0596	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Boron	0.0313	0.100	0.0044	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Cadmium	0.0001	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Calcium	36.0	2.50	0.0628	mg/L	EPA 6020B		5	07/11/16 08:25	07/13/16 16:31	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Cobalt	0.0016	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Molybdenum	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Lithium	ND	0.0500	0.0012	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 13:57	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 17:08	6070223	CSW

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Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163
Client ID: GWC-22
Date/Time Sampled: 7/7/2016 12:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZG0163-10
Date/Time Received: 7/8/2016 8:35:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	206	25	10	mg/L	SM 2540 C		1	07/11/16 12:30	07/11/16 12:30	6070213	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0	B-01	1	07/13/16 10:06	07/13/16 19:29	6070266	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	07/13/16 10:06	07/13/16 19:29	6070266	RLC
Sulfate	6.8	1.0	0.05	mg/L	EPA 300.0		1	07/13/16 10:06	07/13/16 19:29	6070266	RLC
Metals, Total											
Antimony	ND	0.0030	0.0002	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Arsenic	ND	0.0050	0.0007	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Barium	0.121	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Boron	0.0621	0.100	0.0044	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Calcium	45.5	2.50	0.0628	mg/L	EPA 6020B		5	07/11/16 08:25	07/13/16 16:50	6070187	CSW
Chromium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Lead	ND	0.0050	0.00008	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Molybdenum	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Selenium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Thallium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Lithium	0.0138	0.0500	0.0012	mg/L	EPA 6020B	J	1	07/11/16 08:25	07/13/16 14:02	6070187	CSW
Mercury	ND	0.00050	0.00013	mg/L	EPA 7470A		1	07/12/16 09:35	07/12/16 17:10	6070223	CSW

PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070213 - SM 2540 C											
Blank (6070213-BLK1)						Prepared & Analyzed: 07/11/16					
Total Dissolved Solids	ND	10	10	mg/L							
LCS (6070213-BS1)						Prepared & Analyzed: 07/11/16					
Total Dissolved Solids	391	10	10	mg/L	400.00		98	84-108			
Duplicate (6070213-DUP1)		**Source: AZG0163-05**				Prepared & Analyzed: 07/11/16					
Total Dissolved Solids	152	10	10	mg/L		144			5	10	
Duplicate (6070213-DUP2)		**Source: AZG0163-06**				Prepared & Analyzed: 07/11/16					
Total Dissolved Solids	218	10	10	mg/L		212			3	10	

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070266 - EPA 300.0											
Blank (6070266-BLK1)						Prepared & Analyzed: 07/13/16					
Chloride	0.08	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6070266-BS1)						Prepared & Analyzed: 07/13/16					
Chloride	9.99	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	10.7	1.0	0.05	mg/L	10.010		107	90-110			
Matrix Spike (6070266-MS1)		**Source: AZG0163-05**				Prepared & Analyzed: 07/13/16					
Chloride	11.3	0.25	0.01	mg/L	10.010	1.73	96	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010	0.13	105	90-110			
Sulfate	15.2	1.0	0.05	mg/L	10.010	5.72	95	90-110			
Matrix Spike (6070266-MS2)		**Source: AZG0225-04**				Prepared & Analyzed: 07/13/16					
Chloride	11.3	0.25	0.01	mg/L	10.010	1.62	97	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010	0.12	105	90-110			
Sulfate	16.2	1.0	0.05	mg/L	10.010	6.71	95	90-110			
Matrix Spike Dup (6070266-MSD1)		**Source: AZG0163-05**				Prepared & Analyzed: 07/13/16					
Chloride	11.3	0.25	0.01	mg/L	10.010	1.73	96	90-110	0.1	15	
Fluoride	10.6	0.30	0.02	mg/L	10.010	0.13	105	90-110	0	15	
Sulfate	15.2	1.0	0.05	mg/L	10.010	5.72	95	90-110	0.1	15	

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Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070187 - EPA 3005A											
Blank (6070187-BLK1)						Prepared: 07/11/16 Analyzed: 07/13/16					
Antimony	0.0007	0.0030	0.0002	mg/L							J
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	0.0050	0.0004	mg/L							
Lead	ND	0.0050	0.00008	mg/L							
Molybdenum	ND	0.0100	0.0005	mg/L							
Nickel	ND	0.0050	0.0005	mg/L							
Selenium	ND	0.0100	0.0009	mg/L							
Silver	ND	0.0050	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 (6070187-BS1)						Prepared: 07/11/16 Analyzed: 07/13/16					
Antimony	0.107	0.0030	0.0002	mg/L	0.10000		107	80-120			
Arsenic	0.101	0.0050	0.0007	mg/L	0.10000		101	80-120			
Barium	0.0991	0.0100	0.0003	mg/L	0.10000		99	80-120			
Beryllium	0.111	0.0030	0.00009	mg/L	0.10000		111	80-120			
Boron	1.05	0.100	0.0044	mg/L	1.0000		105	80-120			
Cadmium	0.0988	0.0010	0.0001	mg/L	0.10000		99	80-120			
Calcium	1.04	0.500	0.0126	mg/L	1.0000		104	80-120			
Chromium	0.0982	0.0100	0.0004	mg/L	0.10000		98	80-120			
Cobalt	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Copper	0.103	0.0050	0.0004	mg/L	0.10000		103	80-120			
Lead	0.0959	0.0050	0.00008	mg/L	0.10000		96	80-120			
Molybdenum	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Nickel	0.104	0.0050	0.0005	mg/L	0.10000		104	80-120			
Selenium	0.102	0.0100	0.0009	mg/L	0.10000		102	80-120			
Silver	0.0974	0.0050	0.0002	mg/L	0.10000		97	80-120			
Thallium	0.0975	0.0010	0.00006	mg/L	0.10000		97	80-120			
Vanadium	0.0966	0.0100	0.0016	mg/L	0.10000		97	80-120			
Zinc	0.102	0.0100	0.0013	mg/L	0.10000		102	80-120			
Lithium	0.102	0.0500	0.0012	mg/L	0.10000		102	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070187 - EPA 3005A											
Matrix Spike (6070187-MS1)		**Source: AZG0161-01**			Prepared: 07/11/16 Analyzed: 07/13/16						
Antimony	0.108	0.0030	0.0002	mg/L	0.10000	0.0012	106	75-125			
Arsenic	0.0958	0.0050	0.0007	mg/L	0.10000	ND	96	75-125			
Barium	0.115	0.0100	0.0003	mg/L	0.10000	0.0130	102	75-125			
Beryllium	0.107	0.0030	0.00009	mg/L	0.10000	0.0001	107	75-125			
Boron	1.01	0.100	0.0044	mg/L	1.0000	0.0081	100	75-125			
Cadmium	0.100	0.0010	0.0001	mg/L	0.10000	0.0007	100	75-125			
Calcium	21.9	2.50	0.0628	mg/L	1.0000	19.3	256	75-125			QM-02
Chromium	0.0986	0.0100	0.0004	mg/L	0.10000	0.0004	98	75-125			
Cobalt	0.0998	0.0100	0.0003	mg/L	0.10000	ND	100	75-125			
Copper	0.0970	0.0050	0.0004	mg/L	0.10000	ND	97	75-125			
Lead	0.0990	0.0050	0.00008	mg/L	0.10000	0.0001	99	75-125			
Molybdenum	0.0997	0.0100	0.0005	mg/L	0.10000	ND	100	75-125			
Nickel	0.101	0.0050	0.0005	mg/L	0.10000	ND	101	75-125			
Selenium	0.0979	0.0100	0.0009	mg/L	0.10000	ND	98	75-125			
Silver	0.100	0.0050	0.0002	mg/L	0.10000	ND	100	75-125			
Thallium	0.0998	0.0010	0.00006	mg/L	0.10000	0.00009	100	75-125			
Vanadium	0.0986	0.0100	0.0016	mg/L	0.10000	ND	99	75-125			
Zinc	0.345	0.0100	0.0013	mg/L	0.10000	0.263	82	75-125			
Lithium	0.0987	0.0500	0.0012	mg/L	0.10000	ND	99	75-125			
Matrix Spike Dup (6070187-MSD1)		**Source: AZG0161-01**			Prepared: 07/11/16 Analyzed: 07/13/16						
Antimony	0.104	0.0030	0.0002	mg/L	0.10000	0.0012	103	75-125	3	20	
Arsenic	0.0972	0.0050	0.0007	mg/L	0.10000	ND	97	75-125	1	20	
Barium	0.109	0.0100	0.0003	mg/L	0.10000	0.0130	96	75-125	5	20	
Beryllium	0.0958	0.0030	0.00009	mg/L	0.10000	0.0001	96	75-125	11	20	
Boron	0.961	0.100	0.0044	mg/L	1.0000	0.0081	95	75-125	5	20	
Cadmium	0.0981	0.0010	0.0001	mg/L	0.10000	0.0007	97	75-125	2	20	
Calcium	20.2	2.50	0.0628	mg/L	1.0000	19.3	90	75-125	8	20	
Chromium	0.0977	0.0100	0.0004	mg/L	0.10000	0.0004	97	75-125	1	20	
Cobalt	0.0982	0.0100	0.0003	mg/L	0.10000	ND	98	75-125	2	20	
Copper	0.0989	0.0050	0.0004	mg/L	0.10000	ND	99	75-125	2	20	
Lead	0.0925	0.0050	0.00008	mg/L	0.10000	0.0001	92	75-125	7	20	
Molybdenum	0.0988	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	0.9	20	
Nickel	0.101	0.0050	0.0005	mg/L	0.10000	ND	101	75-125	0.07	20	
Selenium	0.0953	0.0100	0.0009	mg/L	0.10000	ND	95	75-125	3	20	
Silver	0.0937	0.0050	0.0002	mg/L	0.10000	ND	94	75-125	7	20	
Thallium	0.0954	0.0010	0.00006	mg/L	0.10000	0.00009	95	75-125	5	20	
Vanadium	0.0938	0.0100	0.0016	mg/L	0.10000	ND	94	75-125	5	20	
Zinc	0.356	0.0100	0.0013	mg/L	0.10000	0.263	93	75-125	3	20	
Lithium	0.0891	0.0500	0.0012	mg/L	0.10000	ND	89	75-125	10	20	

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070187 - EPA 3005A											
Post Spike (6070187-PS1)		**Source: AZG0161-01**				Prepared: 07/11/16 Analyzed: 07/13/16					
Antimony	98.2			ug/L	100.00	1.21	97	80-120			
Arsenic	99.3			ug/L	100.00	0.276	99	80-120			
Barium	110			ug/L	100.00	13.0	97	80-120			
Beryllium	98.8			ug/L	100.00	0.133	99	80-120			
Boron	906			ug/L	1000.0	8.10	90	80-120			
Cadmium	101			ug/L	100.00	0.727	101	80-120			
Calcium	19600			ug/L	1000.0	19300	24	80-120			QM-02
Chromium	101			ug/L	100.00	0.436	101	80-120			
Cobalt	98.5			ug/L	100.00	0.0975	98	80-120			
Copper	101			ug/L	100.00	0.181	101	80-120			
Lead	94.8			ug/L	100.00	0.114	95	80-120			
Molybdenum	99.0			ug/L	100.00	0.127	99	80-120			
Nickel	101			ug/L	100.00	0.454	101	80-120			
Selenium	95.0			ug/L	100.00	0.418	95	80-120			
Silver	94.4			ug/L	100.00	0.0238	94	80-120			
Thallium	96.1			ug/L	100.00	0.0937	96	80-120			
Vanadium	99.3			ug/L	100.00	-0.231	100	80-120			
Zinc	353			ug/L	100.00	263	90	80-120			
Lithium	96.1			ug/L	100.00	1.12	95	80-120			
Batch 6070223 - EPA 7470A											
Blank (6070223-BLK1)						Prepared & Analyzed: 07/12/16					
Mercury	ND	0.00050	0.00013	mg/L							
LCS (6070223-BS1)						Prepared & Analyzed: 07/12/16					
Mercury	0.00261	0.00050	0.00013	mg/L	2.5000E-3		104	80-120			

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Attention: Mr. Joju Abraham

July 15, 2016

Report No.: AZG0163

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6070223 - EPA 7470A											
Duplicate (6070223-DUP1)			**Source: AZF0926-08RE1**			Prepared & Analyzed: 07/12/16					
Mercury	0.00017	0.00050	0.00013	mg/L		ND				20	J
Matrix Spike (6070223-MS1)			**Source: AZG0163-05**			Prepared & Analyzed: 07/12/16					
Mercury	0.00260	0.00050	0.00013	mg/L	2.5000E-3	ND	104	75-125			
Matrix Spike Dup (6070223-MSD1)			**Source: AZG0163-05**			Prepared & Analyzed: 07/12/16					
Mercury	0.00267	0.00050	0.00013	mg/L	2.5000E-3	ND	107	75-125	3	20	
Post Spike (6070223-PS1)			**Source: AZG0163-05**			Prepared & Analyzed: 07/12/16					
Mercury	1.65			ug/L	1.6667	-0.0166	100	80-120			

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 15, 2016

Legend

Definition of Laboratory Terms

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

Sample Information

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

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

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

Definition of Qualifiers

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

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

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

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

CHAIN OF CUSTODY RECORD

Pace Analytical®
www.pacelabs.com

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

PAGE: 1 OF 1

CLIENT NAME: Southern Company Services

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

REPORT TO: Joju Abraham
CC: Heath McCorkle, Maria Padilla

REQUESTED COMPLETION DATE:
PO #:

PROJECT NAME/STATE: Plant Hammond - Huffaker Rd. GWCCR

PROJECT #:

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals APP III + IV EPA 6020 + EPA 7470	Cl, F, SO4 EPA 300	TDS SM2540C	Ra-226 + 228 9315 + 9320							LAB ID NUMBER
CONTAINER TYPE:								P	P	P								
PRESERVATION:								3	7	3								
7/7/16	13:30	W		✓	FB-1	3		1	1	1								1
7/7/16	13:35	W		✓	FB-2	3		1	1	1								2
7/7/16	13:55	W		✓	FERB-1	3		1	1	1								3
7/7/16	14:05	W		✓	FERB-2	3		1	1	1								4
7/7/16	13:25	GW		✓	GWC-23	3		1	1	1								5
7/7/16	12:10	GW		✓	GWC-20	3		1	1	1								6
7/7/16	10:00	GW		✓	GWC-18	3		1	1	1								7
7/7/16	—	GW		✓	DUP-2	3		1	1	1								8
7/7/16	11:04	GW		✓	GWC-21	4		1	1	2								9
7/7/16	12:30	GW		✓	GWC-22	4		1	1	2								10

ANALYSIS REQUESTED

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

*MATRIX CODES:

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

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: Greg J. Vat, Geologist
DATE/TIME: 7/7/2016 18:00

RELINQUISHED BY:
DATE/TIME: 7/8/16 08:35

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB:
DATE/TIME: 7/8/16 0835

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

pH checked: Yes No NA
Ice: Yes No NA
Temperature: 25 Min: 25 Max:
Custody Seal: Intact Broken Not Present N/A
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: AZG-0163
Entered into LIMS: 7/8/16

Tracking #:

PACE ANALYTICAL SERVICES, INC.

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

LOG-IN CHECKLIST **Printed: 7/15/2016 2:48:10PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 07/08/16 08:35

Work Order: AZG0163
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 10 **#Containers:** 32

Minimum Temp(C): 2.0 **Maximum Temp(C):** 2.0 **Custody Seal(s) Used:** No

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:

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

August 15, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on July 11, 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
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: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

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- Huffaker Rd, GW
Pace Project No.: 30189281

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30189281001	**FB-1**	Water	07/07/16 13:30	07/11/16 09:50
30189281002	**FB-2**	Water	07/07/16 13:35	07/11/16 09:50
30189281003	**FERB-1**	Water	07/07/16 13:55	07/11/16 09:50
30189281004	**FERB-2**	Water	07/07/16 14:05	07/11/16 09:50
30189281005	**GWC-23**	Water	07/07/16 13:25	07/11/16 09:50
30189281006	**GWC-20**	Water	07/07/16 12:10	07/11/16 09:50
30189281007	**GWC-18**	Water	07/07/16 10:00	07/11/16 09:50
30189281008	**DUP-2**	Water	07/07/16 00:01	07/11/16 09:50
30189281009	**GWC-21**	Water	07/07/16 11:04	07/11/16 09:50
30189281010	**GWC-22**	Water	07/07/16 12:30	07/11/16 09:50

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SAMPLE ANALYTE COUNT

Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30189281001	**FB-1**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189281002	**FB-2**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189281003	**FERB-1**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189281004	**FERB-2**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189281005	**GWC-23**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189281006	**GWC-20**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189281007	**GWC-18**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189281008	**DUP-2**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189281009	**GWC-21**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30189281010	**GWC-22**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

Sample: FB-1 **Lab ID: 30189281001** Collected: 07/07/16 13:30 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0980 ± 0.0668 (0.305) C:93% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.776 ± 0.468 (0.868) C:72% T:75%**	pCi/L	08/01/16 16:29	15262-20-1	
Total Radium	Total Radium Calculation	**0.678 ± 0.535 (1.17)**	pCi/L	08/15/16 14:32	7440-14-4	

Sample: FB-2 **Lab ID: 30189281002** Collected: 07/07/16 13:35 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0112 ± 0.128 (0.354) C:87% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**-0.0721 ± 0.340 (0.814) C:71% T:80%**	pCi/L	08/01/16 16:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.000 ± 0.468 (1.17)**	pCi/L	08/15/16 14:32	7440-14-4	

Sample: FERB-1 **Lab ID: 30189281003** Collected: 07/07/16 13:55 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.00661 ± 0.150 (0.403) C:78% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.0145 ± 0.370 (0.860) C:71% T:78%**	pCi/L	08/01/16 16:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.0211 ± 0.520 (1.26)**	pCi/L	08/15/16 14:32	7440-14-4	

Sample: FERB-2 **Lab ID: 30189281004** Collected: 07/07/16 14:05 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0709 ± 0.105 (0.356) C:90% T:NA**	pCi/L	07/31/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.750 ± 0.432 (0.796) C:77% T:84%**	pCi/L	08/05/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**0.679 ± 0.537 (1.15)**	pCi/L	08/15/16 14:32	7440-14-4	

Sample: GWC-23 **Lab ID: 30189281005** Collected: 07/07/16 13:25 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0484 ± 0.136 (0.333) C:86% T:NA**	pCi/L	07/31/16 10:14	13982-63-3	
Radium-228	EPA 9320	**0.445 ± 0.425 (0.874) C:73% T:84%**	pCi/L	08/05/16 19:42	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

Sample: GWC-23 **Lab ID: 30189281005** Collected: 07/07/16 13:25 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.493 ± 0.561 (1.21)**	pCi/L	08/15/16 14:32	7440-14-4	

Sample: GWC-20 **Lab ID: 30189281006** Collected: 07/07/16 12:10 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.110 ± 0.0888 (0.363) C:83% T:NA**	pCi/L	07/31/16 10:14	13982-63-3	
Radium-228	EPA 9320	**0.725 ± 0.433 (0.802) C:78% T:78%**	pCi/L	08/05/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**0.615 ± 0.522 (1.17)**	pCi/L	08/15/16 14:32	7440-14-4	

Sample: GWC-18 **Lab ID: 30189281007** Collected: 07/07/16 10:00 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0422 ± 0.124 (0.386) C:94% T:NA**	pCi/L	08/14/16 13:55	13982-63-3	
Radium-228	EPA 9320	**0.0724 ± 0.306 (0.698) C:85% T:74%**	pCi/L	08/05/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**0.0302 ± 0.430 (1.08)**	pCi/L	08/15/16 14:32	7440-14-4	

Sample: DUP-2 **Lab ID: 30189281008** Collected: 07/07/16 00:01 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.285 ± 0.249 (0.471) C:94% T:NA**	pCi/L	08/14/16 13:55	13982-63-3	
Radium-228	EPA 9320	**0.573 ± 0.412 (0.809) C:80% T:84%**	pCi/L	08/05/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**0.858 ± 0.661 (1.28)**	pCi/L	08/15/16 14:32	7440-14-4	

Sample: GWC-21 **Lab ID: 30189281009** Collected: 07/07/16 11:04 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.259 ± 0.228 (0.413) C:85% T:NA**	pCi/L	08/14/16 13:55	13982-63-3	
Radium-228	EPA 9320	**0.132 ± 0.349 (0.782) C:77% T:78%**	pCi/L	08/05/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**0.391 ± 0.577 (1.20)**	pCi/L	08/15/16 14:32	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

Sample: GWC-22 **Lab ID: 30189281010** Collected: 07/07/16 12:30 Received: 07/11/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.274 ± 0.269 (0.536) C:90% T:NA**	pCi/L	08/14/16 13:55	13982-63-3	
Radium-228	EPA 9320	**0.116 ± 0.352 (0.790) C:76% T:87%**	pCi/L	08/05/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**0.390 ± 0.621 (1.33)**	pCi/L	08/15/16 14:32	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
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Greensburg, PA 15601
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

QC Batch: 227760 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30189281001, 30189281002, 30189281003, 30189281004, 30189281005, 30189281006

METHOD BLANK: 1115857 Matrix: Water
Associated Lab Samples: 30189281001, 30189281002, 30189281003, 30189281004, 30189281005, 30189281006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0768 ± 0.0497 (0.266) C:90% T:NA	pCi/L	07/31/16 10:04	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

QC Batch: 227852 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30189281004, 30189281005, 30189281006, 30189281007, 30189281008, 30189281009, 30189281010

METHOD BLANK: 1116119 Matrix: Water
Associated Lab Samples: 30189281004, 30189281005, 30189281006, 30189281007, 30189281008, 30189281009, 30189281010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.375 ± 0.424 (0.889) C:75% T:79%	pCi/L	08/05/16 19:41	

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.

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

QC Batch: 228462 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30189281007, 30189281008, 30189281009, 30189281010

METHOD BLANK: 1119237 Matrix: Water
Associated Lab Samples: 30189281007, 30189281008, 30189281009, 30189281010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.281 ± 0.286 (0.578) C:92% T:NA	pCi/L	08/14/16 13:55	

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

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

QC Batch: 227761 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30189281001, 30189281002, 30189281003

METHOD BLANK: 1115859 Matrix: Water
Associated Lab Samples: 30189281001, 30189281002, 30189281003

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	

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

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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Plant Hammond- Huffaker Rd, GW
Pace Project No.: 30189281

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

CHAIN OF CUSTODY RECORD

Pace Analytical® www.pacelabs.com

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

PAGE: 1 OF 1

CLIENT NAME: Southern Company Services

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

REPORT TO: Joju Abraham
CC: Heath McCorkle, Marla Padilla

REQUESTED COMPLETION DATE:
PO #:

PROJECT NAME/STATE: Plant Hammond - Huffaker Rd. GW CCR

PROJECT #:

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV EPA 6020 & EPA 7470	Cl, F, SO4 EPA 320	TDS SM2540C	Ra-226 & Ra-228 9315 & 9320	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE:		P	P	P			
					PRESERVATION:		3	7	3			
7/7/16	13:30	W		✓	FB-1	3	1	1	1			001
7/7/16	13:35	W		✓	FB-2	3	1	1	1			002
7/7/16	13:55	W		✓	FERB-1	3	1	1	1			003
7/7/16	14:05	W		✓	FERB-2	3	1	1	1			004
7/7/16	13:25	GW		✓	GWC-23	3	1	1	1			005
7/7/16	12:10	GW		✓	GWC-20	3	1	1	1			006
7/7/16	10:00	GW		✓	GWC-18	3	1	1	1			007
7/7/16	—	GW		✓	DUP-2	3	1	1	1			008
7/7/16	11:04	GW		✓	GWC-21	4	1	1	2			009
7/7/16	12:30	GW		✓	GWC-22	4	1	1	2			010

WO#: 30189281

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

*MATRIX CODES:

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

SAMPLED BY AND TITLE: Greg J. Vak, Geologist
DATE/TIME: 7/7/2016 18:00
RELINQUISHED BY:
DATE/TIME: 7/8/16 08:35

RECEIVED BY: Kazen E. Hill
DATE/TIME: 7/11/16 0950
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB: Charles Henderson
DATE/TIME: 7/8/16 0835
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA
Ice: Yes No NA
Temperature: 2°C Min: 2°C Max:
Custody Seal: Intact Broken Not present
# of Coolers:
Cooler ID:

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

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Georgia Power

Project # 30189281

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

Tracking #: 0812 5097 5882

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

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 7/11/14

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

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)

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-226
Analyst:	WRR
Date:	7/28/2016
Worklist:	30561
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1115857
MB concentration:	-0.077
M/B Counting Uncertainty:	0.048
MB MDC:	0.266
MB Numerical Performance Indicator:	-3.11
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS30561	LCSD30561
Count Date:	7/31/2016	7/31/2016
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):	0.506	0.506
Target Conc. (pCi/L, g, F):	9.441	9.443
Uncertainty (Calculated):	0.444	0.444
Result (pCi/L, g, F):	7.856	7.620
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.807	0.764
Numerical Performance Indicator:	-3.37	-4.04
Percent Recovery:	83.20%	80.69%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

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

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS30561	
Duplicate Sample I.D.	LCSD30561	
Sample Result (pCi/L, g, F):	7.856	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.807	
Sample Duplicate Result (pCi/L, g, F):	7.620	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.764	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	0.416	
Duplicate RPD:	3.05%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

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

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

Comments:

8/15/16

Quality Control Sample Performance Assessment

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Test:	Ra-226
Analyst:	JAL
Date:	8/11/2016
Worklist:	30676
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1119237
MB concentration:	0.281
M/B Counting Uncertainty:	0.283
MB MDC:	0.578
MB Numerical Performance Indicator:	1.95
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS30676	LCSD30676
Count Date:	8/15/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.679	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.497	
Target Conc. (pCi/L, g, F):	8.982	
Uncertainty (Calculated):	0.423	
Result (pCi/L, g, F):	11.289	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.060	
Numerical Performance Indicator:	3.96	
Percent Recovery:	125.68%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Fail High**	

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

Duplicate Sample Assessment		
Sample I.D.:	30189283001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30189283001DUP	
Sample Result (pCi/L, g, F):	0.494	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.269	
Sample Duplicate Result (pCi/L, g, F):	0.183	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.190	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	1.849	30189283001
Duplicate RPD:	91.82%	30189283001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

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

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC. Dup result1 < MDC

Comments:

Results < RL - reportable without qualification

**If all sample results are below MDC, the batch is acceptable, otherwise this batch must be reprepped due to LCS failure.
***Batch must be re-prepped due to unacceptable precision.

JH 8/15/16

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JLW
Date:	7/28/2016
Worklist:	30562
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1115859
MB concentration:	0.173
M/B Counting Uncertainty:	0.362
MB MDC:	0.804
MB Numerical Performance Indicator:	0.94
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS30562	LCSD30562
Count Date:	8/1/2016	8/1/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	26.051	26.051
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.807	0.801
Target Conc. (pCi/L, g, F):	6.460	6.501
Uncertainty (Calculated):	0.465	0.468
Result (pCi/L, g, F):	6.058	6.086
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.728	0.749
Numerical Performance Indicator:	-0.91	-0.92
Percent Recovery:	93.78%	93.62%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Duplicate Sample Assessment		
Sample I.D.:	LCS30562	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30562	
Sample Result (pCi/L, g, F):	6.058	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.728	
Sample Duplicate Result (pCi/L, g, F):	6.086	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.749	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.052	
Duplicate RPD:	0.46%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

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

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

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

Comments:

8/15/16

Quality Control Sample Performance Assessment

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Test:	Ra-228
Analyst:	JLW
Date:	8/2/2016
Worklist:	30591
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1116119
MB concentration:	0.375
M/B Counting Uncertainty:	0.418
MB MDC:	0.889
MB Numerical Performance Indicator:	1.76
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS30591	LCSD30591
Count Date:	8/5/2016	8/5/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	26.014	26.014
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.799	0.814
Target Conc. (pCi/L, g, F):	6.513	6.388
Uncertainty (Calculated):	0.469	0.460
Result (pCi/L, g, F):	6.169	6.601
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.752	0.745
Numerical Performance Indicator:	-0.76	0.48
Percent Recovery:	94.71%	103.34%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

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

Duplicate Sample Assessment		
Sample I.D.:	LCS30591	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30591	
Sample Result (pCi/L, g, F):	6.169	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.752	
Sample Duplicate Result (pCi/L, g, F):	6.601	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.745	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.801	
Duplicate RPD:	6.78%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

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

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

Comments:

JW 8/15/16

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

July 27, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Hammond CCR
Pace Project No.: 30187996

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
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

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

CERTIFICATIONS

Project: Hammond CCR
Pace Project No.: 30187996

Pennsylvania Certification IDs

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

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SAMPLE SUMMARY

Project: Hammond CCR
Pace Project No.: 30187996

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187996001	**GWA-4**	Water	05/17/16 11:35	06/28/16 10:30
30187996002	**GWC-5**	Water	05/17/16 15:10	06/28/16 10:30
30187996003	**GWA-11**	Water	05/17/16 12:54	06/28/16 10:30
30187996004	**GWC-10**	Water	05/17/16 15:28	06/28/16 10:30
30187996005	**GWA-2**	Water	05/17/16 10:15	06/28/16 10:30
30187996006	**GWA-3**	Water	05/17/16 13:55	06/28/16 10:30
30187996007	**GWC-6**	Water	05/17/16 17:40	06/28/16 10:30
30187996008	**GWA-1**	Water	05/17/16 10:27	06/28/16 10:30
30187996009	**DUP-1**	Water	05/17/16 00:01	06/28/16 10:30

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SAMPLE ANALYTE COUNT

Project: Hammond CCR
Pace Project No.: 30187996

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187996001	**GWA-4**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187996002	**GWC-5**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187996003	**GWA-11**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187996004	**GWC-10**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187996005	**GWA-2**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187996006	**GWA-3**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187996007	**GWC-6**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187996008	**GWA-1**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187996009	**DUP-1**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187996

Sample: GWA-4 **Lab ID: 30187996001** Collected: 05/17/16 11:35 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	**0.0277 ± 0.0806 (0.199) C:102% T:NA**	pCi/L	07/25/16 09:22	13982-63-3	
Radium-228	EPA 9320	**-0.117 ± 0.267 (0.626) C:85% T:83%**	pCi/L	07/26/16 20:23	15262-20-1	
Total Radium	Total Radium Calculation	**0.000 ± 0.348 (0.825)**	pCi/L	07/27/16 10:27	7440-14-4	

Sample: GWC-5 **Lab ID: 30187996002** Collected: 05/17/16 15:10 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	**0.142 ± 0.116 (0.195) C:95% T:NA**	pCi/L	07/25/16 09:22	13982-63-3	
Radium-228	EPA 9320	**0.395 ± 0.369 (0.742) C:86% T:72%**	pCi/L	07/26/16 20:24	15262-20-1	
Total Radium	Total Radium Calculation	**0.537 ± 0.485 (0.937)**	pCi/L	07/27/16 10:27	7440-14-4	

Sample: GWA-11 **Lab ID: 30187996003** Collected: 05/17/16 12:54 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	**0.171 ± 0.133 (0.231) C:97% T:NA**	pCi/L	07/25/16 09:22	13982-63-3	
Radium-228	EPA 9320	**0.337 ± 0.328 (0.666) C:89% T:85%**	pCi/L	07/26/16 20:24	15262-20-1	
Total Radium	Total Radium Calculation	**0.508 ± 0.461 (0.897)**	pCi/L	07/27/16 10:27	7440-14-4	

Sample: GWC-10 **Lab ID: 30187996004** Collected: 05/17/16 15:28 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	**0.184 ± 0.133 (0.215) C:95% T:NA**	pCi/L	07/25/16 09:22	13982-63-3	
Radium-228	EPA 9320	**0.393 ± 0.324 (0.636) C:88% T:87%**	pCi/L	07/27/16 00:40	15262-20-1	
Total Radium	Total Radium Calculation	**0.577 ± 0.457 (0.851)**	pCi/L	07/27/16 10:27	7440-14-4	

Sample: GWA-2 **Lab ID: 30187996005** Collected: 05/17/16 10:15 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
Radium-226	EPA 9315	**0.140 ± 0.117 (0.208) C:98% T:NA**	pCi/L	07/25/16 09:23	13982-63-3	
Radium-228	EPA 9320	**0.395 ± 0.307 (0.591) C:80% T:86%**	pCi/L	07/27/16 00:40	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187996

Sample: GWA-2 **Lab ID: 30187996005** Collected: 05/17/16 10:15 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 Calculation	**0.535 ± 0.424 (0.799)**	pCi/L	07/27/16 10:27	7440-14-4	

Sample: GWA-3 **Lab ID: 30187996006** Collected: 05/17/16 13:55 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	**0.248 ± 0.147 (0.235) C:98% T:NA**	pCi/L	07/25/16 09:23	13982-63-3	
Radium-228	EPA 9320	**0.607 ± 0.366 (0.681) C:86% T:86%**	pCi/L	07/27/16 00:41	15262-20-1	
Total Radium	Total Radium Calculation	**0.855 ± 0.513 (0.916)**	pCi/L	07/27/16 10:27	7440-14-4	

Sample: GWC-6 **Lab ID: 30187996007** Collected: 05/17/16 17:40 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	**0.304 ± 0.169 (0.253) C:95% T:NA**	pCi/L	07/25/16 09:23	13982-63-3	
Radium-228	EPA 9320	**0.742 ± 0.415 (0.750) C:82% T:74%**	pCi/L	07/27/16 00:40	15262-20-1	
Total Radium	Total Radium Calculation	**1.05 ± 0.584 (1.00)**	pCi/L	07/27/16 10:27	7440-14-4	

Sample: GWA-1 **Lab ID: 30187996008** Collected: 05/17/16 10:27 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	**-0.00450 ± 0.0753 (0.216) C:97% T:NA**	pCi/L	07/25/16 09:23	13982-63-3	
Radium-228	EPA 9320	**1.30 ± 0.465 (0.698) C:81% T:85%**	pCi/L	07/27/16 00:41	15262-20-1	
Total Radium	Total Radium Calculation	**1.30 ± 0.540 (0.914)**	pCi/L	07/27/16 10:27	7440-14-4	

Sample: DUP-1 **Lab ID: 30187996009** Collected: 05/17/16 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
Radium-226	EPA 9315	**0.112 ± 0.112 (0.216) C:95% T:NA**	pCi/L	07/25/16 09:23	13982-63-3	
Radium-228	EPA 9320	**0.182 ± 0.276 (0.577) C:86% T:90%**	pCi/L	07/27/16 00:41	15262-20-1	
Total Radium	Total Radium Calculation	**0.294 ± 0.388 (0.793)**	pCi/L	07/27/16 10:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187996

QC Batch: 226714 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30187996001, 30187996002, 30187996003, 30187996004, 30187996005, 30187996006, 30187996007, 30187996008, 30187996009

METHOD BLANK: 1110830 Matrix: Water
Associated Lab Samples: 30187996001, 30187996002, 30187996003, 30187996004, 30187996005, 30187996006, 30187996007, 30187996008, 30187996009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.408 ± 0.317 (0.622) C:86% T:90%	pCi/L	07/26/16 20:22	

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.

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187996

QC Batch: 226873 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30187996001, 30187996002, 30187996003, 30187996004, 30187996005, 30187996006, 30187996007, 30187996008, 30187996009

METHOD BLANK: 1111681 Matrix: Water
Associated Lab Samples: 30187996001, 30187996002, 30187996003, 30187996004, 30187996005, 30187996006, 30187996007, 30187996008, 30187996009

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.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Hammond CCR
Pace Project No.: 30187996

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

WO#:30187996

Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339

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

TRANSFER OF SAMPLES

GEORGIA POWER
A SOUTHERN COMPANY

Sample Delivery Group No. 103441

Lab Contact: Jolynn Locke	Project Name: Hammond CCR
Email Results To: joklocke@southernco.com	
Turnaound Time: (or expected date of results) 21 days	
Rush Charges Authorized: Yes No x Signature:	

Vendor Laboratory Name and Address
Pace Analytical Services, Inc.
110 Technology Parkway
Peachtree Corners, GA 30092
770-734-4203

Date of Sample Transfer
6/24/2016

Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks
5/17/2016	11:35	1	GWA-4	103441001	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	001
5/17/2016	15:10	1	GWC-5	103441002	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	002
5/17/2016	12:54	1	GWA-11	103441003	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	003
5/17/2016	15:28	1	GWC-10	103441004	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	004
5/17/2016	10:15	1	GWA-2	103441005	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	005
5/17/2016	13:55	1	GWA-3	103441006	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	006
5/17/2016	17:40	1	GWC-6	103441007	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	007
5/17/2016	10:27	1	GWA-1	103441008	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	008
5/17/2016		1	DUP-1	103441009	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	009

Transfer By (Signature): Cindy Fowler

Received By:

Comments: Samples preserved with HNO3 to <2 pH

Date / Time: 6-28-16 1030

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: GA Power

Project # 30187996

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [ ] Pace Other _____

Tracking #: 681250972931

Custody Seal on Cooler/Box Present: [ ] yes [X] no Seals intact: [ ] yes [ ] no

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

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

Temp should be above freezing to 6°C

Date and Initials of person examining contents: NTV 6-28-16

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

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)

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	RMK
Date:	7/20/2016
Worklist:	30360
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1108957
MB concentration:	0.007
M/B Counting Uncertainty:	0.084
MB MDC:	0.222
MB Numerical Performance Indicator:	0.17
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS30360	LCSD30360
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):	0.503	0.504
Target Conc. (pCi/L, g, F):	9.491	9.472
Uncertainty (Calculated):	0.446	0.446
Result (pCi/L, g, F):	7.688	7.338
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.645	0.621
Numerical Performance Indicator:	-4.51	-5.47
Percent Recovery:	81.00%	77.47%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment

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

Duplicate Sample Assessment

Sample I.D.:	LCS30360
Duplicate Sample I.D.	LCSD30360
Sample Result (pCi/L, g, F):	7.688
Sample Result Counting Uncertainty (pCi/L, g, F):	0.645
Sample Duplicate Result (pCi/L, g, F):	7.338
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.621
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	0.766
Duplicate RPD:	4.66%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

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

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

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

Comments:

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	7/21/2016
Worklist:	30409
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1110830
MB concentration:	0.408
M/B Counting Uncertainty:	0.309
MB MDC:	0.622
MB Numerical Performance Indicator:	2.59
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	Y
	LCS30409	LCSD30409
Count Date:	7/26/2016	7/26/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	26.099	26.099
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.810	0.817
Target Conc. (pCi/L, g, F):	6.444	6.388
Uncertainty (Calculated):	0.464	0.460
Result (pCi/L, g, F):	4.232	4.397
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.516	0.523
Numerical Performance Indicator:	-6.25	-5.60
Percent Recovery:	65.67%	68.84%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Duplicate Sample Assessment

Sample I.D.:	LCS30409	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30409	
Sample Result (pCi/L, g, F):	4.232	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.516	
Sample Duplicate Result (pCi/L, g, F):	4.397	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.523	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.441	
Duplicate RPD:	3.83%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

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

Sample Matrix Spike Control Assessment

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

Matrix Spike/Matrix Spike Duplicate Sample Assessment

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

Comments:

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

July 28, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Hammond CCR
Pace Project No.: 30188013

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
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.: 30188013

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.: 30188013

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30188013001	**GWC-7**	Water	05/18/16 11:40	06/28/16 10:30
30188013002	**GWC-19**	Water	05/18/16 15:15	06/28/16 10:30
30188013003	**FB-1**	Water	05/18/16 08:15	06/28/16 10:30
30188013004	**GWC-20**	Water	05/18/16 10:06	06/28/16 10:30
30188013005	**GWC-21**	Water	05/18/16 11:51	06/28/16 10:30
30188013006	**GWC-22**	Water	05/18/16 13:43	06/28/16 10:30
30188013007	**GWC-8**	Water	05/18/16 09:37	06/28/16 10:30
30188013008	**GWC-9**	Water	05/18/16 12:03	06/28/16 10:30
30188013009	**GWC-18**	Water	05/18/16 14:42	06/28/16 10:30
30188013010	**DUP-2**	Water	05/18/16 00:01	06/28/16 10:30

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.: 30188013

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30188013001	**GWC-7**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188013002	**GWC-19**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188013003	**FB-1**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188013004	**GWC-20**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188013005	**GWC-21**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188013006	**GWC-22**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188013007	**GWC-8**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188013008	**GWC-9**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188013009	**GWC-18**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30188013010	**DUP-2**	EPA 9315	JAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30188013

Sample: GWC-7 **Lab ID: 30188013001** Collected: 05/18/16 11:40 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	**0.164 ± 0.118 (0.193) C:95% T:NA**	pCi/L	07/26/16 08:15	13982-63-3	
Radium-228	EPA 9320	**0.663 ± 0.783 (1.64) C:83% T:30%**	pCi/L	07/27/16 12:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.827 ± 0.901 (1.83)**	pCi/L	07/28/16 12:53	7440-14-4	

Sample: GWC-19 **Lab ID: 30188013002** Collected: 05/18/16 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
Radium-226	EPA 9315	**0.00452 ± 0.0644 (0.180) C:94% T:NA**	pCi/L	07/26/16 08:15	13982-63-3	
Radium-228	EPA 9320	**0.802 ± 0.381 (0.632) C:85% T:79%**	pCi/L	07/27/16 12:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.807 ± 0.445 (0.812)**	pCi/L	07/28/16 12:53	7440-14-4	

Sample: FB-1 **Lab ID: 30188013003** Collected: 05/18/16 08:15 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
Radium-226	EPA 9315	**-0.0133 ± 0.0722 (0.214) C:97% T:NA**	pCi/L	07/26/16 08:15	13982-63-3	
Radium-228	EPA 9320	**0.314 ± 0.351 (0.731) C:75% T:76%**	pCi/L	07/27/16 12:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.301 ± 0.423 (0.945)**	pCi/L	07/28/16 12:53	7440-14-4	

Sample: GWC-20 **Lab ID: 30188013004** Collected: 05/18/16 10:06 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	**0.0344 ± 0.0758 (0.179) C:104% T:NA**	pCi/L	07/26/16 08:15	13982-63-3	
Radium-228	EPA 9320	**0.269 ± 0.289 (0.597) C:81% T:83%**	pCi/L	07/27/16 12:30	15262-20-1	
Total Radium	Total Radium Calculation	**0.303 ± 0.365 (0.776)**	pCi/L	07/28/16 12:53	7440-14-4	

Sample: GWC-21 **Lab ID: 30188013005** Collected: 05/18/16 11:51 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	**0.0363 ± 0.0816 (0.193) C:95% T:NA**	pCi/L	07/26/16 08:17	13982-63-3	
Radium-228	EPA 9320	**0.317 ± 0.336 (0.697) C:83% T:81%**	pCi/L	07/27/16 12:31	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30188013

Sample: GWC-21 **Lab ID: 30188013005** Collected: 05/18/16 11:51 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 Calculation	**0.353 ± 0.418 (0.890)**	pCi/L	07/28/16 12:53	7440-14-4	

Sample: GWC-22 **Lab ID: 30188013006** Collected: 05/18/16 13:43 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	**0.335 ± 0.163 (0.231) C:94% T:NA**	pCi/L	07/26/16 08:17	13982-63-3	
Radium-228	EPA 9320	**0.190 ± 0.284 (0.611) C:82% T:90%**	pCi/L	07/27/16 12:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.525 ± 0.447 (0.842)**	pCi/L	07/28/16 12:53	7440-14-4	

Sample: GWC-8 **Lab ID: 30188013007** Collected: 05/18/16 09:37 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	**0.101 ± 0.117 (0.240) C:92% T:NA**	pCi/L	07/26/16 08:17	13982-63-3	
Radium-228	EPA 9320	**0.442 ± 0.330 (0.636) C:83% T:80%**	pCi/L	07/27/16 12:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.543 ± 0.447 (0.876)**	pCi/L	07/28/16 12:53	7440-14-4	

Sample: GWC-9 **Lab ID: 30188013008** Collected: 05/18/16 12:03 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	**0.0640 ± 0.0913 (0.196) C:96% T:NA**	pCi/L	07/26/16 08:17	13982-63-3	
Radium-228	EPA 9320	**0.705 ± 0.330 (0.520) C:83% T:85%**	pCi/L	07/27/16 12:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.769 ± 0.421 (0.716)**	pCi/L	07/28/16 12:53	7440-14-4	

Sample: GWC-18 **Lab ID: 30188013009** Collected: 05/18/16 14:42 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	**0.0200 ± 0.0755 (0.191) C:98% T:NA**	pCi/L	07/26/16 08:18	13982-63-3	
Radium-228	EPA 9320	**0.612 ± 0.365 (0.664) C:78% T:83%**	pCi/L	07/27/16 12:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.632 ± 0.441 (0.855)**	pCi/L	07/28/16 12:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30188013

Sample: DUP-2 **Lab ID: 30188013010** Collected: 05/18/16 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
Radium-226	EPA 9315	**0.0465 ± 0.101 (0.236) C:98% T:NA**	pCi/L	07/26/16 08:18	13982-63-3	
Radium-228	EPA 9320	**0.439 ± 0.310 (0.590) C:85% T:85%**	pCi/L	07/27/16 12:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.486 ± 0.411 (0.826)**	pCi/L	07/28/16 12:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30188013

QC Batch: 226716 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30188013001, 30188013002, 30188013003, 30188013004, 30188013005, 30188013006, 30188013007, 30188013008, 30188013009, 30188013010

METHOD BLANK: 1110832 Matrix: Water
Associated Lab Samples: 30188013001, 30188013002, 30188013003, 30188013004, 30188013005, 30188013006, 30188013007, 30188013008, 30188013009, 30188013010

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	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30188013

QC Batch: 226876 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30188013001, 30188013002, 30188013003, 30188013004, 30188013005, 30188013006, 30188013007, 30188013008, 30188013009, 30188013010

METHOD BLANK: 1111689 Matrix: Water
Associated Lab Samples: 30188013001, 30188013002, 30188013003, 30188013004, 30188013005, 30188013006, 30188013007, 30188013008, 30188013009, 30188013010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0723 ± 0.0932 (0.195) C:97% T:NA	pCi/L	07/26/16 08:15	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Hammond CCR
Pace Project No.: 30188013

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WO#:30188013

Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

TRANSFER OF SAMPLES

GEORGIA POWER
A SOUTHERN COMPANY

Sample Delivery Group No. 103502

Lab Contact: Jolynn Locke	Project Name: Hammond CCR
Email Results To: joklocke@southernco.com	
Turnaound Time: (or expected date of results) 21 days	
Rush Charges Authorized: Yes No x Signature:	

Vendor Laboratory Name and Address
Pace Analytical Services, Inc.
110 Technology Parkway
Peachtree Corners, GA 30092
770-734-4203

Date of Sample Transfer
6/24/2016

Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks
5/18/2016	11:40	1	GWC-7	103502001	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	001
5/18/2016	15:15	1	GWC-19	103502002	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	002
5/18/2016	8:15	1	FB-1	103502003	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	003
5/18/2016	10:06	1	GWC-20	103502004	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	004
5/18/2016	11:51	1	GWC-21	103502005	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	005
5/18/2016	13:43	1	GWC-22	103502006	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	006
5/18/2016	9:37	1	GWC-8	103502007	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	007
5/18/2016	12:03	1	GWC-9	103502008	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	008
5/18/2016	14:42	1	GWC-18	103502009	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	009
5/18/2016		1	DUP-2	103502010	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	010

Transfer By (Signature): Mary Anne Krapilevich

Received By:

Comments: Samples preserved with HNO3 to <2 pH

Date / Time: 6-28-16 1036

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: GA Power Project # 30188013

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [ ] Pace Other _____

Tracking #: 681250972931

Custody Seal on Cooler/Box Present: [ ] yes [X] no Seals intact: [ ] yes [ ] no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: NTV 6-28-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:		X		4.
Sample Labels match COC:	X	X		5. Time on Sample 001 is 1120
-Includes date/time/ID/Analysis Matrix: WT				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. pH<2
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed NTV Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:			X	15.
Trip Blank Custody Seals Present			X	

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)

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	7/21/2016
Worklist:	30411
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1110832
MB concentration:	0.331
M/B Counting Uncertainty:	0.302
MB MDC:	0.624
MB Numerical Performance Indicator:	2.15
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS30411	LCSD30411
Count Date:	7/27/2016	7/27/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	26.094	26.094
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.810	0.818
Target Conc. (pCi/L, g, F):	6.447	6.379
Uncertainty (Calculated):	0.464	0.459
Result (pCi/L, g, F):	6.658	6.024
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.796	0.765
Numerical Performance Indicator:	0.45	-0.78
Percent Recovery:	103.27%	94.44%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

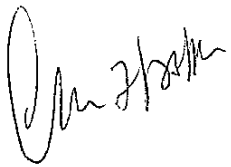
Duplicate Sample Assessment		
Sample I.D.:	LCS30411	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30411	
Sample Result (pCi/L, g, F):	6.658	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.796	
Sample Duplicate Result (pCi/L, g, F):	6.024	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.765	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	1.125	
Duplicate RPD:	9.99%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:



Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	JAL
Date:	7/25/2016
Worklist:	30423
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1111689
MB concentration:	0.072
M/B Counting Uncertainty:	0.093
MB MDC:	0.195
MB Numerical Performance Indicator:	1.53
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS30423	LCSD30423
Count Date:	7/26/2016	7/26/2016
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):	0.502	0.506
Target Conc. (pCi/L, g, F):	9.518	9.444
Uncertainty (Calculated):	0.448	0.444
Result (pCi/L, g, F):	8.089	7.670
LCS/LCSD.Counting Uncertainty (pCi/L, g, F):	0.661	0.629
Numerical Performance Indicator:	-3.51	-4.51
Percent Recovery:	84.99%	81.22%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	LCS30423	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30423	
Sample Result (pCi/L, g, F):	8.089	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.661	
Sample Duplicate Result (pCi/L, g, F):	7.670	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.629	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	0.900	
Duplicate RPD:	5.31%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

7/28/16

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

July 27, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Hammond CCR
Pace Project No.: 30187993

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
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.: 30187993

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.: 30187993

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30187993001	**FERB-1**	Water	05/19/16 07:40	06/28/16 10:30
30187993002	**FB-2**	Water	05/19/16 07:45	06/28/16 10:30
30187993003	**FERB-2**	Water	05/19/16 07:50	06/28/16 10:30
30187993004	**GWC-23**	Water	05/19/16 13:15	06/28/16 10:30

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.: 30187993

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30187993001	**FERB-1**	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187993002	**FB-2**	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187993003	**FERB-2**	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30187993004	**GWC-23**	EPA 9315	RMK	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187993

Sample: FERB-1 **Lab ID: 30187993001** Collected: 05/19/16 07:40 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	**0.00382 ± 0.0912 (0.237) C:99% T:NA**	pCi/L	07/25/16 07:51	13982-63-3	
Radium-228	EPA 9320	**0.541 ± 0.330 (0.601) C:84% T:84%**	pCi/L	07/25/16 20:55	15262-20-1	
Total Radium	Total Radium Calculation	**0.545 ± 0.421 (0.838)**	pCi/L	07/27/16 13:11	7440-14-4	

Sample: FB-2 **Lab ID: 30187993002** Collected: 05/19/16 07:45 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	**0.0740 ± 0.0755 (0.139) C:98% T:NA**	pCi/L	07/25/16 08:17	13982-63-3	
Radium-228	EPA 9320	**0.589 ± 0.334 (0.602) C:83% T:85%**	pCi/L	07/26/16 20:23	15262-20-1	
Total Radium	Total Radium Calculation	**0.663 ± 0.410 (0.741)**	pCi/L	07/27/16 13:11	7440-14-4	

Sample: FERB-2 **Lab ID: 30187993003** Collected: 05/19/16 07:50 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	**0.0961 ± 0.0814 (0.138) C:100% T:NA**	pCi/L	07/25/16 08:17	13982-63-3	
Radium-228	EPA 9320	**0.310 ± 0.354 (0.730) C:87% T:82%**	pCi/L	07/26/16 20:23	15262-20-1	
Total Radium	Total Radium Calculation	**0.406 ± 0.435 (0.868)**	pCi/L	07/27/16 13:11	7440-14-4	

Sample: GWC-23 **Lab ID: 30187993004** Collected: 05/19/16 13:15 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
Radium-226	EPA 9315	**0.0718 ± 0.0744 (0.138) C:96% T:NA**	pCi/L	07/25/16 08:17	13982-63-3	
Radium-228	EPA 9320	**0.150 ± 0.301 (0.647) C:85% T:84%**	pCi/L	07/26/16 20:23	15262-20-1	
Total Radium	Total Radium Calculation	**0.222 ± 0.375 (0.785)**	pCi/L	07/27/16 13:11	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187993

QC Batch: 226714 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30187993002, 30187993003, 30187993004

METHOD BLANK: 1110830 Matrix: Water
Associated Lab Samples: 30187993002, 30187993003, 30187993004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.408 ± 0.317 (0.622) C:86% T:90%	pCi/L	07/26/16 20:22	

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.

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187993

QC Batch: 225791 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30187993001, 30187993002, 30187993003, 30187993004

METHOD BLANK: 1106280 Matrix: Water
Associated Lab Samples: 30187993001, 30187993002, 30187993003, 30187993004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0524 ± 0.0727 (0.154) C:99% T:NA	pCi/L	07/25/16 07:50	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond CCR
Pace Project No.: 30187993

QC Batch: 226713 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30187993001

METHOD BLANK: 1110829 Matrix: Water
Associated Lab Samples: 30187993001

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.

Pace Analytical Services, Inc.
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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Hammond CCR
Pace Project No.: 30187993

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WO#:30187993

Environmental Laboratory

TRANSFER OF SAMPLES

GEORGIA POWER
A SOUTHERN COMPANY

2480 Maner Road, Bin 39110
Atlanta, Georgia 30339

Phone: (404) 799-2100 Fax: (404) 799-2141

Sample Delivery Group No. 103516

Lab Contact: Jolynn Locke	Project Name: Hammond CCR	Vendor Laboratory Name and Address Pace Analytical Services, Inc. 110 Technology Parkway Peachtree Corners, GA 30092 770-734-4203
Email Results To: joklocke@southernco.com Turnaound Time: (or expected date of results) 21 days Rush Charges Authorized: Yes No x Signature:		Date of Sample Transfer 6/24/2016

Sample Date	Sample Time	No. of Containers	Project ID#	Laboratory ID#	Analysis Requested	Remarks
5/19/2016	7:40	1	FERB-1	103516001	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	001
5/19/2016	7:45	1	FB-2	103516002	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	002
5/19/2016	7:50	1	FERB-2	103516003	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	003
5/19/2016	13:15	1	GWC-23	103516004	Radium 226 EPA 903.1/Radium 228 EPA 904.0/Ra Combined	004

Transfer By (Signature): [signature]

Received By: [signature]

Comments: Samples preserved with HNO3 to <2 pH

Date / Time: 6-28-16 1030

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: GA Power Project # 30187993

Courier: [X] Fed Ex [ ] UPS [ ] USPS [ ] Client [ ] Commercial [ ] Pace Other _____

Tracking #: 681250972931

Custody Seal on Cooler/Box Present: [ ] yes [X] no Seals intact: [ ] yes [ ] no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: NJV 6-28-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:		X		4.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: WT				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. pH<2
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed NJV; Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:			X	15.
Trip Blank Custody Seals Present			X	

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)

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	RMK
Date:	7/16/2016
Worklist:	30293
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1106280
MB concentration:	0.052
M/B Counting Uncertainty:	0.072
MB MDC:	0.154
MB Numerical Performance Indicator:	1.42
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS30293	LCSD30293
Count Date:	7/26/2016	7/26/2016
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):	0.500	0.500
Target Conc. (pCi/L, g, F):	9.548	9.555
Uncertainty (Calculated):	0.449	0.449
Result (pCi/L, g, F):	7.234	7.450
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.567	0.572
Numerical Performance Indicator:	-6.27	-5.67
Percent Recovery:	75.77%	77.97%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	LCS30293	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30293	
Sample Result (pCi/L, g, F):	7.234	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.567	
Sample Duplicate Result (pCi/L, g, F):	7.450	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.572	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.525	
Duplicate RPD:	2.94%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	7/21/2016
Worklist:	30408
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1110829
MB concentration:	0.547
M/B Counting Uncertainty:	0.349
MB MDC:	0.688
MB Numerical Performance Indicator:	3.07
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS30408	LCSD30408
Count Date:	7/25/2016	7/25/2016
Spike I.D.:	16-025	16-025
Spike Concentration (pCi/mL):	26.111	26.111
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.808	0.802
Target Conc. (pCi/L, g, F):	6.462	6.511
Uncertainty (Calculated):	0.465	0.469
Result (pCi/L, g, F):	4.536	4.917
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.607	0.644
Numerical Performance Indicator:	-4.94	-3.92
Percent Recovery:	70.18%	75.52%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	LCS30408	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD30408	
Sample Result (pCi/L, g, F):	4.536	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.607	
Sample Duplicate Result (pCi/L, g, F):	4.917	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.644	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-0.844	
Duplicate RPD:	8.06%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZI0226
September 16, 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

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-1	AZI0226-01	Ground Water	09/07/16 12:10	09/08/16 10:55
GWA-2	AZI0226-02	Ground Water	09/07/16 13:05	09/08/16 10:55
GWA-3	AZI0226-03	Ground Water	09/07/16 12:37	09/08/16 10:55
GWA-4	AZI0226-04	Ground Water	09/07/16 13:54	09/08/16 10:55
GWA-11	AZI0226-05	Ground Water	09/07/16 13:17	09/08/16 10:55
GWC-5	AZI0226-06	Ground Water	09/07/16 14:50	09/08/16 10:55
GWC-6	AZI0226-07	Ground Water	09/07/16 15:43	09/08/16 10:55
GWC-7	AZI0226-08	Ground Water	09/07/16 16:40	09/08/16 10:55
GWC-10	AZI0226-09	Ground Water	09/07/16 14:36	09/08/16 10:55
Dup-1	AZI0226-10	Ground Water	09/07/16 00:00	09/08/16 10:55

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: GWA-1
Date/Time Sampled: 9/7/2016 12:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-01
Date/Time Received: 9/8/2016 10:55:00AM

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	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	1.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/12/16 22:33	6090259	RLC
Fluoride	0.13	0.30	0.02	mg/L	EPA 300.0	J	1	09/12/16 09:25	09/12/16 22:33	6090259	RLC
Sulfate	4.8	1.0	0.05	mg/L	EPA 300.0		1	09/12/16 09:25	09/12/16 22:33	6090259	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Barium	0.0413	0.0100	0.0004	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Boron	0.0174	0.100	0.0064	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Calcium	18.2	2.50	0.155	mg/L	EPA 6020B		5	09/13/16 08:30	09/15/16 13:44	6090293	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Nickel	0.0008	0.0100	0.0006	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Zinc	0.0047	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Lithium	0.0095	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:43	6090293	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:06	6090243	MTC

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: GWA-2
Date/Time Sampled: 9/7/2016 1:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-02
Date/Time Received: 9/8/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	240	25	10	mg/L	SM 2540 C		1	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	2.5	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/12/16 22:53	6090259	RLC
Fluoride	0.18	0.30	0.02	mg/L	EPA 300.0	J	1	09/12/16 09:25	09/12/16 22:53	6090259	RLC
Sulfate	16	1.0	0.05	mg/L	EPA 300.0		1	09/12/16 09:25	09/12/16 22:53	6090259	RLC
Metals, Total											
Antimony	0.0021	0.0030	0.0008	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Barium	0.172	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Boron	0.0884	0.100	0.0064	mg/L	EPA 6020B	B-01, J	1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Calcium	37.3	2.50	0.155	mg/L	EPA 6020B		5	09/14/16 11:55	09/16/16 09:42	6090241	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Zinc	0.0024	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Lithium	0.0116	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:44	6090241	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:08	6090243	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: GWA-3
Date/Time Sampled: 9/7/2016 12:37:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-03
Date/Time Received: 9/8/2016 10:55:00AM

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	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	4.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/13/16 00:36	6090259	RLC
Fluoride	0.21	0.30	0.02	mg/L	EPA 300.0	J	1	09/12/16 09:25	09/13/16 00:36	6090259	RLC
Sulfate	83	10	0.51	mg/L	EPA 300.0		10	09/12/16 09:25	09/13/16 16:28	6090259	RLC
Metals, Total											
Antimony	0.0009	0.0030	0.0008	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Barium	0.164	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Boron	0.163	0.100	0.0064	mg/L	EPA 6020B	B-01	1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Calcium	59.8	5.00	0.311	mg/L	EPA 6020B		10	09/14/16 11:55	09/16/16 09:47	6090241	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Zinc	0.0034	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Lithium	0.0195	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:50	6090241	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:10	6090243	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: GWA-4
Date/Time Sampled: 9/7/2016 1:54:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-04
Date/Time Received: 9/8/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	493	25	10	mg/L	SM 2540 C		1	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	7.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/13/16 00:57	6090259	RLC
Fluoride	0.20	0.30	0.02	mg/L	EPA 300.0	J	1	09/12/16 09:25	09/13/16 00:57	6090259	RLC
Sulfate	160	10	0.51	mg/L	EPA 300.0		10	09/12/16 09:25	09/13/16 18:14	6090259	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Barium	0.0415	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Boron	0.107	0.100	0.0064	mg/L	EPA 6020B	B-01	1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Calcium	67.2	5.00	0.311	mg/L	EPA 6020B		10	09/14/16 11:55	09/16/16 09:53	6090241	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Nickel	0.0014	0.0100	0.0006	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Zinc	0.0035	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Lithium	0.0153	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 19:56	6090241	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:18	6090243	MTC

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: GWA-11
Date/Time Sampled: 9/7/2016 1:17:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-05
Date/Time Received: 9/8/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	128	25	10	mg/L	SM 2540 C		1	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/13/16 01:18	6090259	RLC
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	09/12/16 09:25	09/13/16 01:18	6090259	RLC
Sulfate	13	1.0	0.05	mg/L	EPA 300.0		1	09/12/16 09:25	09/13/16 01:18	6090259	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Barium	0.0324	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Boron	0.0352	0.100	0.0064	mg/L	EPA 6020B	B-01, J	1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Calcium	16.7	2.50	0.155	mg/L	EPA 6020B		5	09/14/16 11:55	09/16/16 09:59	6090241	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Cobalt	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Nickel	0.0026	0.0100	0.0006	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Zinc	0.0023	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Lithium	0.0111	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:01	6090241	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:20	6090243	MTC

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: GWC-5
Date/Time Sampled: 9/7/2016 2:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-06
Date/Time Received: 9/8/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	382	25	10	mg/L	SM 2540 C		1	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	2.8	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/13/16 01:38	6090259	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	09/12/16 09:25	09/13/16 01:38	6090259	RLC
Sulfate	64	5.0	0.26	mg/L	EPA 300.0		5	09/12/16 09:25	09/15/16 11:52	6090259	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Barium	0.0945	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Boron	0.0648	0.100	0.0064	mg/L	EPA 6020B	B-01, J	1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Calcium	61.6	5.00	0.311	mg/L	EPA 6020B		10	09/14/16 11:55	09/16/16 10:05	6090241	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Lithium	0.0269	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:07	6090241	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:22	6090243	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: GWC-6
Date/Time Sampled: 9/7/2016 3:43:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-07
Date/Time Received: 9/8/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	324	25	10	mg/L	SM 2540 C		1	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/13/16 01:59	6090259	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	09/12/16 09:25	09/13/16 01:59	6090259	RLC
Sulfate	97	5.0	0.26	mg/L	EPA 300.0		5	09/12/16 09:25	09/15/16 12:13	6090259	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Barium	0.154	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Boron	0.0400	0.100	0.0064	mg/L	EPA 6020B	B-01, J	1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Calcium	53.7	5.00	0.311	mg/L	EPA 6020B		10	09/14/16 11:55	09/16/16 10:10	6090241	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Zinc	0.0024	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Lithium	0.0181	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:24	6090241	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:25	6090243	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: GWC-7
Date/Time Sampled: 9/7/2016 4:40:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-08
Date/Time Received: 9/8/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	247	25	10	mg/L	SM 2540 C		1	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/13/16 02:40	6090259	RLC
Fluoride	0.53	0.30	0.02	mg/L	EPA 300.0		1	09/12/16 09:25	09/13/16 02:40	6090259	RLC
Sulfate	130	5.0	0.26	mg/L	EPA 300.0		5	09/12/16 09:25	09/15/16 12:34	6090259	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Arsenic	0.0065	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Barium	0.0703	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Beryllium	0.0002	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Boron	0.0582	0.100	0.0064	mg/L	EPA 6020B	B-01, J	1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Calcium	19.2	2.50	0.155	mg/L	EPA 6020B		5	09/14/16 11:55	09/16/16 10:16	6090241	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Cobalt	0.0334	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Nickel	0.141	0.0100	0.0006	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Zinc	0.240	0.0100	0.0021	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Lithium	0.0410	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:30	6090241	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:27	6090243	MTC

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: GWC-10
Date/Time Sampled: 9/7/2016 2:36:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-09
Date/Time Received: 9/8/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	165	25	10	mg/L	SM 2540 C		1	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/13/16 03:01	6090259	RLC
Fluoride	0.13	0.30	0.02	mg/L	EPA 300.0	J	1	09/12/16 09:25	09/13/16 03:01	6090259	RLC
Sulfate	10	1.0	0.05	mg/L	EPA 300.0		1	09/12/16 09:25	09/13/16 03:01	6090259	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Barium	0.0985	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Boron	0.0283	0.100	0.0064	mg/L	EPA 6020B	B-01, J	1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Calcium	28.9	2.50	0.155	mg/L	EPA 6020B		5	09/14/16 11:55	09/16/16 10:39	6090241	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Lithium	0.0090	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:36	6090241	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:29	6090243	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226
Client ID: Dup-1
Date/Time Sampled: 9/7/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0226-10
Date/Time Received: 9/8/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	146	25	10	mg/L	SM 2540 C		1	09/12/16 15:25	09/12/16 15:25	6090265	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/12/16 09:25	09/13/16 03:22	6090259	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	09/12/16 09:25	09/13/16 03:22	6090259	RLC
Sulfate	12	1.0	0.05	mg/L	EPA 300.0		1	09/12/16 09:25	09/13/16 03:22	6090259	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Barium	0.0318	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Boron	0.0327	0.100	0.0064	mg/L	EPA 6020B	B-01, J	1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Calcium	17.2	2.50	0.155	mg/L	EPA 6020B		5	09/14/16 11:55	09/16/16 10:45	6090241	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Cobalt	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Nickel	0.0029	0.0100	0.0006	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Zinc	0.0030	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Lithium	0.0108	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 11:55	09/14/16 20:42	6090241	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/12/16 08:55	09/12/16 15:32	6090243	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090265 - SM 2540 C											
Blank (6090265-BLK1)						Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090265-BS1)						Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	403	25	10	mg/L	400.00		101	84-108			
Duplicate (6090265-DUP1)		**Source: AZI0226-03**				Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	450	25	10	mg/L		443			2	10	
Duplicate (6090265-DUP2)		**Source: AZI0226-07**				Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	313	25	10	mg/L		324			3	10	

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September 16, 2016

Report No.: AZI0226

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090259 - EPA 300.0											
Blank (6090259-BLK1)						Prepared & Analyzed: 09/12/16					
Chloride	0.05	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6090259-BS1)						Prepared & Analyzed: 09/12/16					
Chloride	10.2	0.25	0.01	mg/L	10.010		102	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010		106	90-110			
Sulfate	10.3	1.0	0.05	mg/L	10.010		103	90-110			
Matrix Spike (6090259-MS1)		**Source: AZI0211-02**				Prepared & Analyzed: 09/12/16					
Chloride	17.0	0.25	0.01	mg/L	10.010	7.86	91	90-110			
Fluoride	9.71	0.30	0.02	mg/L	10.010	0.09	96	90-110			
Sulfate	53.3	1.0	0.05	mg/L	10.010	48.5	48	90-110			QM-05
Matrix Spike (6090259-MS2)		**Source: AZI0226-07**				Prepared: 09/12/16 Analyzed: 09/13/16					
Chloride	11.9	0.25	0.01	mg/L	10.010	1.96	99	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.010	0.08	105	90-110			
Sulfate	98.2	1.0	0.05	mg/L	10.010	98.5	NR	90-110			QM-05
Matrix Spike Dup (6090259-MSD1)		**Source: AZI0211-02**				Prepared & Analyzed: 09/12/16					
Chloride	17.5	0.25	0.01	mg/L	10.010	7.86	96	90-110	3	15	
Fluoride	10.4	0.30	0.02	mg/L	10.010	0.09	103	90-110	7	15	
Sulfate	53.6	1.0	0.05	mg/L	10.010	48.5	51	90-110	0.5	15	QM-05

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September 16, 2016

Report No.: AZI0226

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090241 - EPA 3005A											
Blank (6090241-BLK1)						Prepared & Analyzed: 09/14/16					
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	0.0068	0.100	0.0064	mg/L							J
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 (6090241-BS1)						Prepared & Analyzed: 09/14/16					
Antimony	0.103	0.0030	0.0008	mg/L	0.10000		103	80-120			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000		100	80-120			
Barium	0.0975	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	0.100	0.0064	mg/L	1.0000		106	80-120			
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	1.03	0.500	0.0311	mg/L	1.0000		103	80-120			
Chromium	0.101	0.0100	0.0009	mg/L	0.10000		101	80-120			
Cobalt	0.0963	0.0100	0.0005	mg/L	0.10000		96	80-120			
Copper	0.0983	0.0250	0.0005	mg/L	0.10000		98	80-120			
Lead	0.0990	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	0.0998	0.0100	0.0006	mg/L	0.10000		100	80-120			
Selenium	0.0969	0.0100	0.0010	mg/L	0.10000		97	80-120			
Silver	0.0985	0.0100	0.0005	mg/L	0.10000		98	80-120			
Thallium	0.0978	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.0989	0.0100	0.0071	mg/L	0.10000		99	80-120			
Zinc	0.104	0.0100	0.0021	mg/L	0.10000		104	80-120			
Lithium	0.108	0.0500	0.0021	mg/L	0.10000		108	80-120			

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September 16, 2016

Report No.: AZI0226

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090241 - EPA 3005A											
Matrix Spike (6090241-MS1)		**Source: AZI0226-03**			Prepared & Analyzed: 09/14/16						
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	0.0009	106	75-125			
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000	ND	104	75-125			
Barium	0.294	0.0100	0.0004	mg/L	0.10000	0.164	130	75-125			QM-02
Beryllium	0.0956	0.0030	0.00008	mg/L	0.10000	ND	96	75-125			
Boron	1.07	0.100	0.0064	mg/L	1.0000	0.163	90	75-125			
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	62.4	5.00	0.311	mg/L	1.0000	59.8	260	75-125			QM-02
Chromium	0.101	0.0100	0.0009	mg/L	0.10000	ND	101	75-125			
Cobalt	0.0996	0.0100	0.0005	mg/L	0.10000	ND	100	75-125			
Copper	0.0960	0.0250	0.0005	mg/L	0.10000	ND	96	75-125			
Lead	0.0962	0.0050	0.0001	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.107	0.0100	0.0017	mg/L	0.10000	ND	107	75-125			
Nickel	0.100	0.0100	0.0006	mg/L	0.10000	ND	100	75-125			
Selenium	0.0997	0.0100	0.0010	mg/L	0.10000	ND	100	75-125			
Silver	0.0974	0.0100	0.0005	mg/L	0.10000	ND	97	75-125			
Thallium	0.0978	0.0010	0.0002	mg/L	0.10000	ND	98	75-125			
Vanadium	0.101	0.0100	0.0071	mg/L	0.10000	ND	101	75-125			
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	0.0034	102	75-125			
Lithium	0.115	0.0500	0.0021	mg/L	0.10000	0.0195	96	75-125			
Matrix Spike Dup (6090241-MSD1)		**Source: AZI0226-03**			Prepared & Analyzed: 09/14/16						
Antimony	0.108	0.0030	0.0008	mg/L	0.10000	0.0009	107	75-125	1	20	
Arsenic	0.103	0.0050	0.0016	mg/L	0.10000	ND	103	75-125	0.5	20	
Barium	0.297	0.0100	0.0004	mg/L	0.10000	0.164	133	75-125	0.9	20	QM-02
Beryllium	0.0881	0.0030	0.00008	mg/L	0.10000	ND	88	75-125	8	20	
Boron	1.04	0.100	0.0064	mg/L	1.0000	0.163	88	75-125	2	20	
Cadmium	0.100	0.0010	0.00007	mg/L	0.10000	ND	100	75-125	2	20	
Calcium	60.5	5.00	0.311	mg/L	1.0000	59.8	75	75-125	3	20	
Chromium	0.0983	0.0100	0.0009	mg/L	0.10000	ND	98	75-125	3	20	
Cobalt	0.0982	0.0100	0.0005	mg/L	0.10000	ND	98	75-125	1	20	
Copper	0.0956	0.0250	0.0005	mg/L	0.10000	ND	96	75-125	0.4	20	
Lead	0.0971	0.0050	0.0001	mg/L	0.10000	ND	97	75-125	0.9	20	
Molybdenum	0.106	0.0100	0.0017	mg/L	0.10000	ND	106	75-125	2	20	
Nickel	0.0993	0.0100	0.0006	mg/L	0.10000	ND	99	75-125	1	20	
Selenium	0.0974	0.0100	0.0010	mg/L	0.10000	ND	97	75-125	2	20	
Silver	0.0985	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	1	20	
Thallium	0.0992	0.0010	0.0002	mg/L	0.10000	ND	99	75-125	1	20	
Vanadium	0.100	0.0100	0.0071	mg/L	0.10000	ND	100	75-125	1	20	
Zinc	0.103	0.0100	0.0021	mg/L	0.10000	0.0034	100	75-125	2	20	
Lithium	0.115	0.0500	0.0021	mg/L	0.10000	0.0195	95	75-125	0.1	20	

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090241 - EPA 3005A											
Post Spike (6090241-PS1)			**Source: AZI0226-03**			Prepared & Analyzed: 09/14/16					
Antimony	92.1			ug/L	100.00	0.876	91	80-120			
Arsenic	101			ug/L	100.00	1.05	100	80-120			
Barium	291			ug/L	100.00	164	127	80-120			QM-02
Beryllium	88.7			ug/L	100.00	0.0152	89	80-120			
Boron	961			ug/L	1000.0	163	80	80-120			
Cadmium	97.2			ug/L	100.00	-0.0130	97	80-120			
Calcium	60700			ug/L	1000.0	59800	92	80-120			
Chromium	100			ug/L	100.00	0.275	100	80-120			
Cobalt	98.2			ug/L	100.00	0.175	98	80-120			
Copper	95.3			ug/L	100.00	0.0297	95	80-120			
Lead	96.1			ug/L	100.00	0.0240	96	80-120			
Molybdenum	108			ug/L	100.00	0.161	107	80-120			
Nickel	97.3			ug/L	100.00	0.424	97	80-120			
Selenium	99.8			ug/L	100.00	-0.260	100	80-120			
Silver	95.0			ug/L	100.00	0.0150	95	80-120			
Thallium	98.4			ug/L	100.00	0.0413	98	80-120			
Vanadium	102			ug/L	100.00	-0.0816	103	80-120			
Zinc	102			ug/L	100.00	3.38	99	80-120			
Lithium	110			ug/L	100.00	19.5	91	80-120			
Batch 6090243 - EPA 7470A											
Blank (6090243-BLK1)						Prepared & Analyzed: 09/12/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6090243-BS1)						Prepared & Analyzed: 09/12/16					
Mercury	0.00249	0.00050	0.000041	mg/L	2.5000E-3		100	80-120			

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Report No.: AZI0226

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090243 - EPA 7470A											
Matrix Spike (6090243-MS1)			**Source: AZI0211-05**			Prepared & Analyzed: 09/12/16					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6090243-MSD1)			**Source: AZI0211-05**			Prepared & Analyzed: 09/12/16					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125	2	20	
Post Spike (6090243-PS1)			**Source: AZI0211-05**			Prepared & Analyzed: 09/12/16					
Mercury	1.77			ug/L	1.6667	0.0125	105	80-120			
Batch 6090293 - EPA 3005A											
Blank (6090293-BLK1)						Prepared: 09/13/16 Analyzed: 09/14/16					
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	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							

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September 16, 2016

Report No.: AZI0226

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090293 - EPA 3005A											
LCS (6090293-BS1)						Prepared: 09/13/16 Analyzed: 09/14/16					
Antimony	0.0987	0.0030	0.0008	mg/L	0.10000		99	80-120			
Arsenic	0.0983	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.0993	0.0100	0.0004	mg/L	0.10000		99	80-120			
Beryllium	0.0985	0.0030	0.00008	mg/L	0.10000		99	80-120			
Boron	0.958	0.100	0.0064	mg/L	1.0000		96	80-120			
Cadmium	0.0974	0.0010	0.00007	mg/L	0.10000		97	80-120			
Calcium	0.935	0.500	0.0311	mg/L	1.0000		94	80-120			
Chromium	0.105	0.0100	0.0009	mg/L	0.10000		105	80-120			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Copper	0.102	0.0050	0.0005	mg/L	0.10000		102	80-120			
Lead	0.0991	0.0050	0.0001	mg/L	0.10000		99	80-120			
Molybdenum	0.0946	0.0100	0.0017	mg/L	0.10000		95	80-120			
Nickel	0.105	0.0050	0.0006	mg/L	0.10000		105	80-120			
Selenium	0.101	0.0100	0.0010	mg/L	0.10000		101	80-120			
Silver	0.0975	0.0050	0.0005	mg/L	0.10000		98	80-120			
Thallium	0.100	0.0010	0.0002	mg/L	0.10000		100	80-120			
Vanadium	0.100	0.0100	0.0071	mg/L	0.10000		100	80-120			
Zinc	0.104	0.0100	0.0021	mg/L	0.10000		104	80-120			
Lithium	0.0937	0.0500	0.0021	mg/L	0.10000		94	80-120			
Matrix Spike (6090293-MS1)		**Source: AZI0207-01**				Prepared: 09/13/16 Analyzed: 09/14/16					
Antimony	0.102	0.0030	0.0008	mg/L	0.10000	0.0039	98	75-125			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000	ND	100	75-125			
Barium	0.108	0.0100	0.0004	mg/L	0.10000	0.0095	99	75-125			
Beryllium	0.103	0.0030	0.00008	mg/L	0.10000	ND	103	75-125			
Boron	1.05	0.100	0.0064	mg/L	1.0000	0.0084	104	75-125			
Cadmium	0.0968	0.0010	0.00007	mg/L	0.10000	ND	97	75-125			
Calcium	1.80	0.500	0.0311	mg/L	1.0000	0.858	94	75-125			
Chromium	0.0969	0.0100	0.0009	mg/L	0.10000	ND	97	75-125			
Cobalt	0.0971	0.0100	0.0005	mg/L	0.10000	0.0009	96	75-125			
Copper	0.106	0.0050	0.0005	mg/L	0.10000	0.0097	96	75-125			
Lead	0.0990	0.0050	0.0001	mg/L	0.10000	0.0001	99	75-125			
Molybdenum	0.0974	0.0100	0.0017	mg/L	0.10000	ND	97	75-125			
Nickel	0.108	0.0050	0.0006	mg/L	0.10000	0.0090	99	75-125			
Selenium	0.0968	0.0100	0.0010	mg/L	0.10000	ND	97	75-125			
Silver	0.0985	0.0050	0.0005	mg/L	0.10000	ND	99	75-125			
Thallium	0.0990	0.0010	0.0002	mg/L	0.10000	ND	99	75-125			
Vanadium	0.0973	0.0100	0.0071	mg/L	0.10000	ND	97	75-125			
Zinc	0.102	0.0100	0.0021	mg/L	0.10000	0.0052	97	75-125			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0050	98	75-125			

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Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0226

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090293 - EPA 3005A											
Matrix Spike Dup (6090293-MSD1)		**Source: AZI0207-01**			Prepared: 09/13/16 Analyzed: 09/14/16						
Antimony	0.0985	0.0030	0.0008	mg/L	0.10000	0.0039	95	75-125	4	20	
Arsenic	0.0976	0.0050	0.0016	mg/L	0.10000	ND	98	75-125	3	20	
Barium	0.104	0.0100	0.0004	mg/L	0.10000	0.0095	94	75-125	4	20	
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125	2	20	
Boron	1.00	0.100	0.0064	mg/L	1.0000	0.0084	99	75-125	4	20	
Cadmium	0.0984	0.0010	0.00007	mg/L	0.10000	ND	98	75-125	2	20	
Calcium	1.73	0.500	0.0311	mg/L	1.0000	0.858	87	75-125	4	20	
Chromium	0.0971	0.0100	0.0009	mg/L	0.10000	ND	97	75-125	0.2	20	
Cobalt	0.0967	0.0100	0.0005	mg/L	0.10000	0.0009	96	75-125	0.4	20	
Copper	0.107	0.0050	0.0005	mg/L	0.10000	0.0097	97	75-125	1	20	
Lead	0.0969	0.0050	0.0001	mg/L	0.10000	0.0001	97	75-125	2	20	
Molybdenum	0.0967	0.0100	0.0017	mg/L	0.10000	ND	97	75-125	0.6	20	
Nickel	0.109	0.0050	0.0006	mg/L	0.10000	0.0090	100	75-125	0.9	20	
Selenium	0.0958	0.0100	0.0010	mg/L	0.10000	ND	96	75-125	1	20	
Silver	0.0961	0.0050	0.0005	mg/L	0.10000	ND	96	75-125	3	20	
Thallium	0.0962	0.0010	0.0002	mg/L	0.10000	ND	96	75-125	3	20	
Vanadium	0.0990	0.0100	0.0071	mg/L	0.10000	ND	99	75-125	2	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0052	100	75-125	3	20	
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0050	98	75-125	0.3	20	
Post Spike (6090293-PS1)		**Source: AZI0207-01**			Prepared: 09/13/16 Analyzed: 09/14/16						
Antimony	91.5			ug/L	100.00	3.87	88	80-120			
Arsenic	97.4			ug/L	100.00	0.213	97	80-120			
Barium	108			ug/L	100.00	9.47	99	80-120			
Beryllium	103			ug/L	100.00	0.0497	103	80-120			
Boron	1020			ug/L	1000.0	8.37	101	80-120			
Cadmium	101			ug/L	100.00	0.0611	100	80-120			
Calcium	1790			ug/L	1000.0	858	93	80-120			
Chromium	104			ug/L	100.00	0.391	103	80-120			
Cobalt	99.3			ug/L	100.00	0.850	98	80-120			
Copper	112			ug/L	100.00	9.69	102	80-120			
Lead	98.3			ug/L	100.00	0.131	98	80-120			
Molybdenum	96.4			ug/L	100.00	0.182	96	80-120			
Nickel	111			ug/L	100.00	9.02	102	80-120			
Selenium	96.9			ug/L	100.00	0.0385	97	80-120			
Silver	99.3			ug/L	100.00	0.0257	99	80-120			
Thallium	100			ug/L	100.00	0.131	100	80-120			
Vanadium	102			ug/L	100.00	0.227	102	80-120			
Zinc	105			ug/L	100.00	5.19	100	80-120			
Lithium	107			ug/L	100.00	5.01	102	80-120			

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

B-01 Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239

REPORT TO: Joju Abraham

CC: Mana Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond Huffaker

PROJECT #: CCR + State GW

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470)	Cl, F, SO4, & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	Metals State Permit (EPA 6020) Ag, Cu, Ni, V, Zn					LAB ID NUMBER
CONTAINER TYPE							P	P	P	P					
PRESERVATION							3	7	3	3					
09/07/16	12:10	GW		X	GWA-1	4	1	1	2	1					1
09/07/16	13:05	GW		X	GWA-2	3	1	1	1	1					2
09/07/16	12:37	GW		X	GWA-3	3	1	1	1	1					3
09/07/16	13:54	GW		X	GWA-4	3	1	1	1	1					4
09/07/16	13:17	GW		X	GWA-11	3	1	1	1	1					5
09/07/16	14:50	GW		X	GWC-5	3	1	1	1	1					6
09/07/16	15:43	GW		X	GWC-6	3	1	1	1	1					7
09/07/16	16:40	GW		X	GWC-7	3	1	1	1	1					8
09/07/16	14:35	GW		X	GWC-10	3	1	1	1	1					9
09/07/16	--	GW		X	DUP-1	3	1	1	1	1					10

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M.Thomas, W.Virgo, T.Wardell

DATE/TIME: 9/7/2016 - 17:00

RELINQUISHED BY: Will Virgo (TERM)

DATE/TIME: 9/8/16 1055

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY/LAB: Charla Hale

DATE/TIME: 9/8/16 1055

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

Custody Seal: Intact Broken None Present

# of Coolers: 2

Cooler ID:

Temperature: 1°C Min: Max:

FOR LAB USE ONLY

LAB #: AZF10226

Entered into LIMS:

Tracking #:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 9/16/2016 6:24:55PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 09/08/16 10:55

Work Order: AZI0226
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 10 **#Containers:** 31

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **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:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZI0284
September 16, 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

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-8	AZI0284-01	Ground Water	09/08/16 12:50	09/09/16 10:55
GWC-9	AZI0284-02	Ground Water	09/08/16 14:35	09/09/16 10:55
GWC-18	AZI0284-03	Ground Water	09/08/16 16:00	09/09/16 10:55
GWC-19	AZI0284-04	Ground Water	09/08/16 10:40	09/09/16 10:55
GWC-20	AZI0284-05	Ground Water	09/08/16 12:20	09/09/16 10:55
GWC-21	AZI0284-06	Ground Water	09/08/16 15:25	09/09/16 10:55
GWC-22	AZI0284-07	Ground Water	09/08/16 13:42	09/09/16 10:55
GWC-23	AZI0284-08	Ground Water	09/08/16 14:45	09/09/16 10:55
FB-1	AZI0284-09	DI Water	09/08/16 09:00	09/09/16 10:55
FB-2	AZI0284-10	DI Water	09/08/16 12:50	09/09/16 10:55
FERB-1	AZI0284-11	DI Water	09/08/16 09:10	09/09/16 10:55
FERB-2	AZI0284-12	DI Water	09/08/16 16:45	09/09/16 10:55
Dup-2	AZI0284-13	Ground Water	09/08/16 00:00	09/09/16 10:55

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: GWC-8
Date/Time Sampled: 9/8/2016 12:50:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0284-01
Date/Time Received: 9/9/2016 10:55:00AM

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	09/13/16 18:10	09/13/16 18:10	6090305	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.01	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 06:34	6090370	RLC
Fluoride	0.35	0.30	0.02	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 06:34	6090370	RLC
Sulfate	45	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 06:34	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Barium	0.0925	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 09:20	09/16/16 16:10	6090322	CSW
Boron	0.0234	0.100	0.0064	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Calcium	51.3	5.00	0.311	mg/L	EPA 6020B		10	09/14/16 09:20	09/16/16 16:35	6090322	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Lithium	0.0096	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:34	6090322	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:28	6090286	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: GWC-9
Date/Time Sampled: 9/8/2016 2:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0284-02
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	201	25	10	mg/L	SM 2540 C		1	09/13/16 18:10	09/13/16 18:10	6090305	JPT
Inorganic Anions											
Chloride	1.0	0.25	0.01	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 06:55	6090370	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 06:55	6090370	RLC
Sulfate	68	2.0	0.10	mg/L	EPA 300.0		2	09/14/16 15:11	09/16/16 10:29	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Barium	0.0630	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 09:20	09/16/16 16:14	6090322	CSW
Boron	0.0157	0.100	0.0064	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Calcium	32.1	2.50	0.155	mg/L	EPA 6020B		5	09/14/16 09:20	09/16/16 16:41	6090322	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Nickel	0.0023	0.0100	0.0006	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Lithium	0.0150	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:40	6090322	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:30	6090286	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: GWC-18
Date/Time Sampled: 9/8/2016 4:00:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0284-03
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	193	25	10	mg/L	SM 2540 C		1	09/13/16 18:10	09/13/16 18:10	6090305	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.01	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 07:16	6090370	RLC
Fluoride	0.14	0.30	0.02	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 07:16	6090370	RLC
Sulfate	9.4	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 07:16	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Barium	0.0810	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 09:20	09/16/16 16:18	6090322	CSW
Boron	0.126	0.100	0.0064	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Calcium	35.9	2.50	0.155	mg/L	EPA 6020B		5	09/14/16 09:20	09/16/16 16:46	6090322	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Nickel	0.0009	0.0100	0.0006	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Zinc	0.0024	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Lithium	0.0142	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:46	6090322	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:33	6090286	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: GWC-19
Date/Time Sampled: 9/8/2016 10:40:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0284-04
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	252	25	10	mg/L	SM 2540 C		1	09/13/16 18:10	09/13/16 18:10	6090305	JPT
Inorganic Anions											
Chloride	1.9	0.25	0.01	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 07:37	6090370	RLC
Fluoride	0.15	0.30	0.02	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 07:37	6090370	RLC
Sulfate	16	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 07:37	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Barium	0.142	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 09:20	09/16/16 16:23	6090322	CSW
Boron	0.173	0.100	0.0064	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Calcium	40.9	2.50	0.155	mg/L	EPA 6020B		5	09/14/16 09:20	09/16/16 16:52	6090322	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Zinc	0.0029	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Lithium	0.0175	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:51	6090322	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:40	6090286	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: GWC-20
Date/Time Sampled: 9/8/2016 12:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0284-05
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	201	25	10	mg/L	SM 2540 C		1	09/13/16 18:10	09/13/16 18:10	6090305	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 07:58	6090370	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 07:58	6090370	RLC
Sulfate	30	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 07:58	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Barium	0.121	0.0100	0.0004	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/14/16 09:20	09/16/16 16:27	6090322	CSW
Boron	0.0178	0.100	0.0064	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Calcium	48.0	2.50	0.155	mg/L	EPA 6020B		5	09/14/16 09:20	09/15/16 02:03	6090322	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Lithium	0.0100	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/14/16 09:20	09/15/16 01:57	6090322	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:42	6090286	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: GWC-21
Date/Time Sampled: 9/8/2016 3:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0284-06
Date/Time Received: 9/9/2016 10:55:00AM

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	09/13/16 18:10	09/13/16 18:10	6090305	JPT
Inorganic Anions											
Chloride	2.3	0.25	0.01	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 09:44	6090370	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 09:44	6090370	RLC
Sulfate	33	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 09:44	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Barium	0.184	0.0100	0.0004	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Boron	0.0593	0.100	0.0064	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Calcium	70.0	5.00	0.311	mg/L	EPA 6020B		10	09/13/16 08:30	09/15/16 14:01	6090293	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Copper	0.0006	0.0250	0.0005	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Molybdenum	0.0079	0.0100	0.0017	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Nickel	0.0038	0.0100	0.0006	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Zinc	0.0047	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Lithium	0.0028	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:48	6090293	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:44	6090286	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: GWC-22
Date/Time Sampled: 9/8/2016 1:42:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0284-07
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	214	25	10	mg/L	SM 2540 C		1	09/13/16 18:10	09/13/16 18:10	6090305	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 10:06	6090370	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 10:06	6090370	RLC
Sulfate	6.8	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 10:06	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Barium	0.0917	0.0100	0.0004	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Boron	0.0607	0.100	0.0064	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Calcium	46.8	2.50	0.155	mg/L	EPA 6020B		5	09/13/16 08:30	09/15/16 14:07	6090293	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Lithium	0.0137	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 12:54	6090293	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:47	6090286	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: GWC-23
Date/Time Sampled: 9/8/2016 2:45:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0284-08
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	179	25	10	mg/L	SM 2540 C		1	09/13/16 18:10	09/13/16 18:10	6090305	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 10:48	6090370	RLC
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 10:48	6090370	RLC
Sulfate	5.7	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 10:48	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Barium	0.0726	0.0100	0.0004	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Boron	0.0170	0.100	0.0064	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Calcium	34.7	2.50	0.155	mg/L	EPA 6020B		5	09/13/16 08:30	09/15/16 14:13	6090293	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Nickel	0.0011	0.0100	0.0006	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Lithium	0.0163	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 13:00	6090293	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:49	6090286	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: FB-1
Date/Time Sampled: 9/8/2016 9:00:00AM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0284-09
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	09/13/16 19:00	09/13/16 19:00	6090306	JPT
Inorganic Anions											
Chloride	0.07	0.25	0.01	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 11:09	6090370	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 11:09	6090370	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 11:09	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Calcium	0.0891	0.500	0.0311	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Lead	0.0008	0.0050	0.0001	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Zinc	0.0041	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:35	6090293	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:52	6090286	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: FB-2
Date/Time Sampled: 9/8/2016 12:50:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0284-10
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	09/13/16 19:00	09/13/16 19:00	6090306	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 11:31	6090370	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 11:31	6090370	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 11:31	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Zinc	0.0025	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:41	6090293	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:54	6090286	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: FERB-1
Date/Time Sampled: 9/8/2016 9:10:00AM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0284-11
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	09/13/16 19:00	09/13/16 19:00	6090306	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 12:55	6090370	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 12:55	6090370	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 12:55	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:47	6090293	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:56	6090286	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: FERB-2
Date/Time Sampled: 9/8/2016 4:45:00PM
Matrix: DI Water

Project: CCR Event
Lab Number ID: AZI0284-12
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	09/13/16 19:00	09/13/16 19:00	6090306	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.01	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 14:43	6090370	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 14:43	6090370	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 14:43	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Zinc	ND	0.0100	0.0021	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:52	6090293	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 14:59	6090286	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284
Client ID: Dup-2
Date/Time Sampled: 9/8/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZI0284-13
Date/Time Received: 9/9/2016 10:55:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	215	25	10	mg/L	SM 2540 C		1	09/13/16 19:00	09/13/16 19:00	6090306	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 15:04	6090370	RLC
Fluoride	0.14	0.30	0.02	mg/L	EPA 300.0	J	1	09/14/16 15:11	09/15/16 15:04	6090370	RLC
Sulfate	17	1.0	0.05	mg/L	EPA 300.0		1	09/14/16 15:11	09/15/16 15:04	6090370	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Barium	0.138	0.0100	0.0004	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Boron	0.164	0.100	0.0064	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Calcium	37.7	2.50	0.155	mg/L	EPA 6020B		5	09/13/16 08:30	09/14/16 14:04	6090293	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Copper	ND	0.0250	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Nickel	ND	0.0100	0.0006	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Silver	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Vanadium	ND	0.0100	0.0071	mg/L	EPA 6020B		1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Zinc	0.0045	0.0100	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Lithium	0.0166	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/13/16 08:30	09/14/16 13:58	6090293	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/13/16 08:40	09/13/16 15:01	6090286	MTC

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Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090305 - SM 2540 C											
Blank (6090305-BLK1)						Prepared & Analyzed: 09/13/16					
Total Dissolved Solids	ND	10	10	mg/L							
LCS (6090305-BS1)						Prepared & Analyzed: 09/13/16					
Total Dissolved Solids	388	10	10	mg/L	400.00		97	84-108			
Duplicate (6090305-DUP1)		**Source: AZI0282-02**				Prepared & Analyzed: 09/13/16					
Total Dissolved Solids	295	10	10	mg/L		293			0.7	10	
Duplicate (6090305-DUP2)		**Source: AZI0284-05**				Prepared & Analyzed: 09/13/16					
Total Dissolved Solids	216	10	10	mg/L		201			7	10	
Batch 6090306 - SM 2540 C											
Blank (6090306-BLK1)						Prepared & Analyzed: 09/13/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090306-BS1)						Prepared & Analyzed: 09/13/16					
Total Dissolved Solids	373	25	10	mg/L	400.00		93	84-108			
Duplicate (6090306-DUP1)		**Source: AZI0284-12**				Prepared & Analyzed: 09/13/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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September 16, 2016

Report No.: AZI0284

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090370 - EPA 300.0											
Blank (6090370-BLK1)						Prepared & Analyzed: 09/14/16					
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 (6090370-BS1)						Prepared & Analyzed: 09/14/16					
Chloride	9.80	0.25	0.01	mg/L	10.010		98	90-110			
Fluoride	9.99	0.30	0.02	mg/L	10.010		100	90-110			
Sulfate	9.86	1.0	0.05	mg/L	10.010		99	90-110			
Matrix Spike (6090370-MS1)		**Source: AZI0270-04**				Prepared: 09/14/16 Analyzed: 09/15/16					
Chloride	15.7	0.25	0.01	mg/L	10.010	5.97	98	90-110			
Fluoride	10.8	0.30	0.02	mg/L	10.010	0.31	105	90-110			
Sulfate	221	1.0	0.05	mg/L	10.010	231	NR	90-110			QM-05
Matrix Spike (6090370-MS2)		**Source: AZI0270-07**				Prepared: 09/14/16 Analyzed: 09/15/16					
Chloride	15.6	0.25	0.01	mg/L	10.010	5.51	101	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.010	0.14	102	90-110			
Sulfate	220	1.0	0.05	mg/L	10.010	215	58	90-110			QM-05
Matrix Spike Dup (6090370-MSD1)		**Source: AZI0270-04**				Prepared: 09/14/16 Analyzed: 09/15/16					
Chloride	15.8	0.25	0.01	mg/L	10.010	5.97	98	90-110	0.4	15	
Fluoride	10.7	0.30	0.02	mg/L	10.010	0.31	104	90-110	0.5	15	
Sulfate	221	1.0	0.05	mg/L	10.010	231	NR	90-110	0.09	15	QM-05

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September 16, 2016

Report No.: AZI0284

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090286 - EPA 7470A											
Blank (6090286-BLK1)						Prepared & Analyzed: 09/13/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6090286-BS1)						Prepared & Analyzed: 09/13/16					
Mercury	0.00240	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			
Matrix Spike (6090286-MS1)			**Source: AZI0284-01**			Prepared & Analyzed: 09/13/16					
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (6090286-MSD1)			**Source: AZI0284-01**			Prepared & Analyzed: 09/13/16					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125	0.3	20	
Post Spike (6090286-PS1)			**Source: AZI0284-01**			Prepared & Analyzed: 09/13/16					
Mercury	1.73			ug/L	1.6667	0.0131	103	80-120			
Batch 6090293 - EPA 3005A											
Blank (6090293-BLK1)						Prepared: 09/13/16 Analyzed: 09/14/16					
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	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							

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September 16, 2016

Report No.: AZI0284

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090293 - EPA 3005A											
LCS (6090293-BS1)						Prepared: 09/13/16 Analyzed: 09/14/16					
Antimony	0.0987	0.0030	0.0008	mg/L	0.10000		99	80-120			
Arsenic	0.0983	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.0993	0.0100	0.0004	mg/L	0.10000		99	80-120			
Beryllium	0.0985	0.0030	0.00008	mg/L	0.10000		99	80-120			
Boron	0.958	0.100	0.0064	mg/L	1.0000		96	80-120			
Cadmium	0.0974	0.0010	0.00007	mg/L	0.10000		97	80-120			
Calcium	0.935	0.500	0.0311	mg/L	1.0000		94	80-120			
Chromium	0.105	0.0100	0.0009	mg/L	0.10000		105	80-120			
Cobalt	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Copper	0.102	0.0050	0.0005	mg/L	0.10000		102	80-120			
Lead	0.0991	0.0050	0.0001	mg/L	0.10000		99	80-120			
Molybdenum	0.0946	0.0100	0.0017	mg/L	0.10000		95	80-120			
Nickel	0.105	0.0050	0.0006	mg/L	0.10000		105	80-120			
Selenium	0.101	0.0100	0.0010	mg/L	0.10000		101	80-120			
Silver	0.0975	0.0050	0.0005	mg/L	0.10000		98	80-120			
Thallium	0.100	0.0010	0.0002	mg/L	0.10000		100	80-120			
Vanadium	0.100	0.0100	0.0071	mg/L	0.10000		100	80-120			
Zinc	0.104	0.0100	0.0021	mg/L	0.10000		104	80-120			
Lithium	0.0937	0.0500	0.0021	mg/L	0.10000		94	80-120			
Matrix Spike (6090293-MS1)		**Source: AZI0207-01**				Prepared: 09/13/16 Analyzed: 09/14/16					
Antimony	0.102	0.0030	0.0008	mg/L	0.10000	0.0039	98	75-125			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000	ND	100	75-125			
Barium	0.108	0.0100	0.0004	mg/L	0.10000	0.0095	99	75-125			
Beryllium	0.103	0.0030	0.00008	mg/L	0.10000	ND	103	75-125			
Boron	1.05	0.100	0.0064	mg/L	1.0000	0.0084	104	75-125			
Cadmium	0.0968	0.0010	0.00007	mg/L	0.10000	ND	97	75-125			
Calcium	1.80	0.500	0.0311	mg/L	1.0000	0.858	94	75-125			
Chromium	0.0969	0.0100	0.0009	mg/L	0.10000	ND	97	75-125			
Cobalt	0.0971	0.0100	0.0005	mg/L	0.10000	0.0009	96	75-125			
Copper	0.106	0.0050	0.0005	mg/L	0.10000	0.0097	96	75-125			
Lead	0.0990	0.0050	0.0001	mg/L	0.10000	0.0001	99	75-125			
Molybdenum	0.0974	0.0100	0.0017	mg/L	0.10000	ND	97	75-125			
Nickel	0.108	0.0050	0.0006	mg/L	0.10000	0.0090	99	75-125			
Selenium	0.0968	0.0100	0.0010	mg/L	0.10000	ND	97	75-125			
Silver	0.0985	0.0050	0.0005	mg/L	0.10000	ND	99	75-125			
Thallium	0.0990	0.0010	0.0002	mg/L	0.10000	ND	99	75-125			
Vanadium	0.0973	0.0100	0.0071	mg/L	0.10000	ND	97	75-125			
Zinc	0.102	0.0100	0.0021	mg/L	0.10000	0.0052	97	75-125			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0050	98	75-125			

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090293 - EPA 3005A											
Matrix Spike Dup (6090293-MSD1)		**Source: AZI0207-01**			Prepared: 09/13/16 Analyzed: 09/14/16						
Antimony	0.0985	0.0030	0.0008	mg/L	0.10000	0.0039	95	75-125	4	20	
Arsenic	0.0976	0.0050	0.0016	mg/L	0.10000	ND	98	75-125	3	20	
Barium	0.104	0.0100	0.0004	mg/L	0.10000	0.0095	94	75-125	4	20	
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125	2	20	
Boron	1.00	0.100	0.0064	mg/L	1.0000	0.0084	99	75-125	4	20	
Cadmium	0.0984	0.0010	0.00007	mg/L	0.10000	ND	98	75-125	2	20	
Calcium	1.73	0.500	0.0311	mg/L	1.0000	0.858	87	75-125	4	20	
Chromium	0.0971	0.0100	0.0009	mg/L	0.10000	ND	97	75-125	0.2	20	
Cobalt	0.0967	0.0100	0.0005	mg/L	0.10000	0.0009	96	75-125	0.4	20	
Copper	0.107	0.0050	0.0005	mg/L	0.10000	0.0097	97	75-125	1	20	
Lead	0.0969	0.0050	0.0001	mg/L	0.10000	0.0001	97	75-125	2	20	
Molybdenum	0.0967	0.0100	0.0017	mg/L	0.10000	ND	97	75-125	0.6	20	
Nickel	0.109	0.0050	0.0006	mg/L	0.10000	0.0090	100	75-125	0.9	20	
Selenium	0.0958	0.0100	0.0010	mg/L	0.10000	ND	96	75-125	1	20	
Silver	0.0961	0.0050	0.0005	mg/L	0.10000	ND	96	75-125	3	20	
Thallium	0.0962	0.0010	0.0002	mg/L	0.10000	ND	96	75-125	3	20	
Vanadium	0.0990	0.0100	0.0071	mg/L	0.10000	ND	99	75-125	2	20	
Zinc	0.105	0.0100	0.0021	mg/L	0.10000	0.0052	100	75-125	3	20	
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0050	98	75-125	0.3	20	
Post Spike (6090293-PS1)		**Source: AZI0207-01**			Prepared: 09/13/16 Analyzed: 09/14/16						
Antimony	91.5			ug/L	100.00	3.87	88	80-120			
Arsenic	97.4			ug/L	100.00	0.213	97	80-120			
Barium	108			ug/L	100.00	9.47	99	80-120			
Beryllium	103			ug/L	100.00	0.0497	103	80-120			
Boron	1020			ug/L	1000.0	8.37	101	80-120			
Cadmium	101			ug/L	100.00	0.0611	100	80-120			
Calcium	1790			ug/L	1000.0	858	93	80-120			
Chromium	104			ug/L	100.00	0.391	103	80-120			
Cobalt	99.3			ug/L	100.00	0.850	98	80-120			
Copper	112			ug/L	100.00	9.69	102	80-120			
Lead	98.3			ug/L	100.00	0.131	98	80-120			
Molybdenum	96.4			ug/L	100.00	0.182	96	80-120			
Nickel	111			ug/L	100.00	9.02	102	80-120			
Selenium	96.9			ug/L	100.00	0.0385	97	80-120			
Silver	99.3			ug/L	100.00	0.0257	99	80-120			
Thallium	100			ug/L	100.00	0.131	100	80-120			
Vanadium	102			ug/L	100.00	0.227	102	80-120			
Zinc	105			ug/L	100.00	5.19	100	80-120			
Lithium	107			ug/L	100.00	5.01	102	80-120			

PACE ANALYTICAL SERVICES, INC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090322 - EPA 3005A											
Blank (6090322-BLK1)						Prepared & Analyzed: 09/14/16					
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	0.100	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	0.0250	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 (6090322-BS1)						Prepared & Analyzed: 09/14/16					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000		106	80-120			
Arsenic	0.0992	0.0050	0.0016	mg/L	0.10000		99	80-120			
Barium	0.0991	0.0100	0.0004	mg/L	0.10000		99	80-120			
Beryllium	0.0963	0.0030	0.00008	mg/L	0.10000		96	80-120			
Boron	1.04	0.100	0.0064	mg/L	1.0000		104	80-120			
Cadmium	0.0975	0.0010	0.00007	mg/L	0.10000		97	80-120			
Calcium	1.08	0.500	0.0311	mg/L	1.0000		108	80-120			
Chromium	0.0960	0.0100	0.0009	mg/L	0.10000		96	80-120			
Cobalt	0.0964	0.0100	0.0005	mg/L	0.10000		96	80-120			
Copper	0.0942	0.0250	0.0005	mg/L	0.10000		94	80-120			
Lead	0.0979	0.0050	0.0001	mg/L	0.10000		98	80-120			
Molybdenum	0.101	0.0100	0.0017	mg/L	0.10000		101	80-120			
Nickel	0.0968	0.0100	0.0006	mg/L	0.10000		97	80-120			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000		103	80-120			
Silver	0.0980	0.0100	0.0005	mg/L	0.10000		98	80-120			
Thallium	0.0974	0.0010	0.0002	mg/L	0.10000		97	80-120			
Vanadium	0.0962	0.0100	0.0071	mg/L	0.10000		96	80-120			
Zinc	0.104	0.0100	0.0021	mg/L	0.10000		104	80-120			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000		103	80-120			

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Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090322 - EPA 3005A											
Matrix Spike (6090322-MS1)		**Source: AZI0269-05**				Prepared & Analyzed: 09/14/16					
Antimony	0.105	0.0030	0.0008	mg/L	0.10000	ND	105	75-125			
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125			
Barium	0.120	0.0100	0.0004	mg/L	0.10000	0.0242	96	75-125			
Beryllium	0.0890	0.0030	0.00008	mg/L	0.10000	ND	89	75-125			
Boron	0.968	0.100	0.0064	mg/L	1.0000	ND	97	75-125			
Cadmium	0.0982	0.0010	0.00007	mg/L	0.10000	ND	98	75-125			
Calcium	27.6	0.500	0.155	mg/L	1.0000	26.8	84	75-125			
Chromium	0.0959	0.0100	0.0009	mg/L	0.10000	ND	96	75-125			
Cobalt	0.0943	0.0100	0.0005	mg/L	0.10000	ND	94	75-125			
Copper	0.0933	0.0250	0.0005	mg/L	0.10000	ND	93	75-125			
Lead	0.0970	0.0050	0.0001	mg/L	0.10000	ND	97	75-125			
Molybdenum	0.101	0.0100	0.0017	mg/L	0.10000	ND	101	75-125			
Nickel	0.0938	0.0100	0.0006	mg/L	0.10000	ND	94	75-125			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000	ND	102	75-125			
Silver	0.0948	0.0100	0.0005	mg/L	0.10000	ND	95	75-125			
Thallium	0.0969	0.0010	0.0002	mg/L	0.10000	ND	97	75-125			
Vanadium	0.0966	0.0100	0.0071	mg/L	0.10000	ND	97	75-125			
Zinc	0.101	0.0100	0.0021	mg/L	0.10000	ND	101	75-125			
Lithium	0.0939	0.0500	0.0021	mg/L	0.10000	ND	94	75-125			
Matrix Spike Dup (6090322-MSD1)		**Source: AZI0269-05**				Prepared & Analyzed: 09/14/16					
Antimony	0.104	0.0030	0.0008	mg/L	0.10000	ND	104	75-125	0.6	20	
Arsenic	0.102	0.0050	0.0016	mg/L	0.10000	ND	102	75-125	0.005	20	
Barium	0.122	0.0100	0.0004	mg/L	0.10000	0.0242	97	75-125	2	20	
Beryllium	0.0918	0.0030	0.00008	mg/L	0.10000	ND	92	75-125	3	20	
Boron	0.986	0.100	0.0064	mg/L	1.0000	ND	99	75-125	2	20	
Cadmium	0.0965	0.0010	0.00007	mg/L	0.10000	ND	97	75-125	2	20	
Calcium	26.6	0.500	0.155	mg/L	1.0000	26.8	NR	75-125	4	20	QM-02
Chromium	0.0975	0.0100	0.0009	mg/L	0.10000	ND	97	75-125	2	20	
Cobalt	0.0951	0.0100	0.0005	mg/L	0.10000	ND	95	75-125	0.9	20	
Copper	0.0930	0.0250	0.0005	mg/L	0.10000	ND	93	75-125	0.3	20	
Lead	0.0965	0.0050	0.0001	mg/L	0.10000	ND	97	75-125	0.5	20	
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000	ND	102	75-125	0.7	20	
Nickel	0.0941	0.0100	0.0006	mg/L	0.10000	ND	94	75-125	0.3	20	
Selenium	0.0988	0.0100	0.0010	mg/L	0.10000	ND	99	75-125	3	20	
Silver	0.0970	0.0100	0.0005	mg/L	0.10000	ND	97	75-125	2	20	
Thallium	0.0967	0.0010	0.0002	mg/L	0.10000	ND	97	75-125	0.2	20	
Vanadium	0.0955	0.0100	0.0071	mg/L	0.10000	ND	95	75-125	1	20	
Zinc	0.101	0.0100	0.0021	mg/L	0.10000	ND	101	75-125	0.4	20	
Lithium	0.0960	0.0500	0.0021	mg/L	0.10000	ND	96	75-125	2	20	

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 16, 2016

Report No.: AZI0284

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090322 - EPA 3005A											
Post Spike (6090322-PS1)		**Source: AZI0269-05**			Prepared & Analyzed: 09/14/16						
Antimony	94.5			ug/L	100.00	0.368	94	80-120			
Arsenic	100			ug/L	100.00	0.0511	100	80-120			
Barium	122			ug/L	100.00	24.2	98	80-120			
Beryllium	92.5			ug/L	100.00	0.0060	93	80-120			
Boron	952			ug/L	1000.0	5.24	95	80-120			
Cadmium	101			ug/L	100.00	-0.0105	101	80-120			
Calcium	28000			ug/L	1000.0	26800	118	80-120			
Chromium	99.3			ug/L	100.00	0.862	98	80-120			
Cobalt	97.5			ug/L	100.00	0.0548	97	80-120			
Copper	93.7			ug/L	100.00	0.0786	94	80-120			
Lead	96.3			ug/L	100.00	0.0261	96	80-120			
Molybdenum	102			ug/L	100.00	0.784	102	80-120			
Nickel	94.5			ug/L	100.00	0.0913	94	80-120			
Selenium	96.5			ug/L	100.00	-0.0345	96	80-120			
Silver	97.1			ug/L	100.00	0.0057	97	80-120			
Thallium	96.6			ug/L	100.00	0.0625	97	80-120			
Vanadium	98.0			ug/L	100.00	0.172	98	80-120			
Zinc	103			ug/L	100.00	1.20	102	80-120			
Lithium	97.0			ug/L	100.00	0.571	96	80-120			

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Attention: Mr. Joju Abraham

September 16, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond Huffaker

PROJECT #: CCR + State Permit

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	Metals State Permit (EPA 6020) Ag, Cu, Ni, V, Zn						LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE		P	P	P	P							
					PRESERVATION		3	7	3	3							
09/08/16	12:50	GW		X	GWC-8	3	1	1	1	1						1	
09/08/16	14:35	GW		X	GWC-9	3	1	1	1	1						2	
09/08/16	16:00	GW		X	GWC-18	3	1	1	1	1						3	
09/08/16	10:40	GW		X	GWC-19	3	1	1	1	1						4	
09/08/16	12:20	GW		X	GWC-20	3	1	1	1	1						5	
09/08/16	15:25	GW		X	GWC-21	3	1	1	1	1						6	
09/08/16	13:42	GW		X	GWC-22	4	1	1	2	1						7	
09/08/16	14:45	GW		X	GWC-23	3	1	1	1	1						8	
09/08/16	09:00	W		X	FB-1	3	1	1	1	1						9	
09/08/16	12:50	W		X	FB-2	3	1	1	1	1						10	
09/08/16	09:10	W		X	FERB-1	3	1	1	1	1						11	
09/08/16	16:45	W		X	FERB-2	3	1	1	1	1						12	

CONTAINER TYPE
P - PLASTIC
A - AMBER GLASS
G - CLEAR GLASS
V - VOA VIAL
S - STERILE
O - OTHER

PRESERVATION
1 - HCl, ≤6°C
2 - H_2SO_4, ≤6°C
3 - HNO_3
4 - NaOH, ≤6°C
5 - NaOH/ZnAc, ≤6°C
6 - $Na_2S_2O_3$, ≤6°C
7 - ≤6°C not frozen

***MATRIX CODES:**
DW - DRINKING WATER
WW - WASTEWATER
GW - GROUNDWATER
SW - SURFACE WATER
ST - STORM WATER
W - WATER
S - SOIL
SL - SLUDGE
SD - SOLID
A - AIR
L - LIQUID
P - PRODUCT

SAMPLED BY AND TITLE: A. Shoulders M. Thomas T. Waddell
DATE/TIME: 9/8/2016 5:00:00 PM

RELINQUISHED BY: [signature]
DATE/TIME: 09/09/16 10:55

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: [signature]
DATE/TIME: 09/09/16 1055

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (CLIENT) OTHER FS

pH checked: (Yes) No NA
Ice: (Yes) No NA
Temperature: 1°C Min: 1°C Max:
Custody Seal: (Intact) Broken Not Present
# of Coolers
Cooler ID:

FOR LAB USE ONLY
LAB #: AZI0284
Entered into LIMS: MB
Tracking #:

Copy of Plant Hammond Huffaker COC.xlsx

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond Huffaker

PROJECT #: CCR + State Permit

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	Metals State Permit (EPA 6020) Ag, Cu, Ni, V, Zn						LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
						CONTAINER TYPE:		P	P	P	P							
						PRESERVATION:		3	7	3	3							
09/08/16	–	GW		X	DUP-2	3		1	1	1	1						13	

CONTAINER TYPE
- P - PLASTIC
- A - AMBER GLASS
- G - CLEAR GLASS
- V - VOA VIAL
- S - STERILE
- O - OTHER

PRESERVATION
- 1 - HCl, ≤6°C
- 2 - H_2SO_4, ≤6°C
- 3 - HNO_3
- 4 - NaOH, ≤6°C
- 5 - NaOH/ZnAc, ≤6°C
- 6 - $Na_2S_2O_3$, ≤6°C
- 7 - ≤6°C not frozen

***MATRIX CODES:**
- DW - DRINKING WATER
- WW - WASTEWATER
- GW - GROUNDWATER
- SW - SURFACE WATER
- ST - STORM WATER
- W - WATER
- S - SOIL
- SL - SLUDGE
- SD - SOLID
- A - AIR
- L - LIQUID
- P - PRODUCT

SAMPLED BY AND TITLE: A. Shoulders M. Thomas T. Waddell | DATE/TIME: 9/8/2016 5:00:00 PM

RELINQUISHED BY: [signature] | DATE/TIME: 09/09/16 10:55

RECEIVED BY: | DATE/TIME:

RELINQUISHED BY: | DATE/TIME:

RECEIVED BY LAB: [signature] | DATE/TIME: 09/09/16 1055

pH Checked: Yes (circled) No NA | Ice: Yes (circled) No NA | Temperature: 1°C Min: 1°C Max:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT (circled) OTHER FS

Custody Seal: Intact (circled) Broken Not Present | # of Coolers | Cooler ID:

FOR LAB USE ONLY
LAB #: AZI0284
Entered Into LIMS: MR
Tracking #:

Copy of Plant Hammond Huffaker COC.xlsx

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 9/16/2016 7:25:17PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 09/09/16 10:55

Work Order: AZI0284
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 13 **#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	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, INC.

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: **AZJ0518**
October 26, 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

PACE ANALYTICAL SERVICES, INC.

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 26, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-1	AZJ0518-01	Ground Water	10/18/16 09:49	10/19/16 10:45
GWA-2	AZJ0518-02	Ground Water	10/18/16 09:19	10/19/16 10:45
GWA-3	AZJ0518-03	Ground Water	10/18/16 09:45	10/19/16 10:45
GWA-4	AZJ0518-04	Ground Water	10/18/16 12:05	10/19/16 10:45
GWA-11	AZJ0518-05	Ground Water	10/18/16 11:00	10/19/16 10:45
GWC-5	AZJ0518-06	Ground Water	10/18/16 10:39	10/19/16 10:45
GWC-6	AZJ0518-07	Ground Water	10/18/16 14:35	10/19/16 10:45
GWC-7	AZJ0518-08	Ground Water	10/18/16 12:36	10/19/16 10:45
GWC-10	AZJ0518-09	Ground Water	10/18/16 12:28	10/19/16 10:45
GWC-19	AZJ0518-10	Ground Water	10/18/16 13:57	10/19/16 10:45
FB-1	AZJ0518-11	Water	10/18/16 14:20	10/19/16 10:45
FERB-1	AZJ0518-12	Water	10/18/16 14:40	10/19/16 10:45
GWC-8	AZJ0518-13	Ground Water	10/18/16 14:45	10/19/16 10:45
Dup-1	AZJ0518-14	Ground Water	10/18/16 00:00	10/19/16 10:45

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Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: GWA-1
Date/Time Sampled: 10/18/2016 9:49:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-01
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	133	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	1.1	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 15:15	6100567	RLC
Fluoride	0.15	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 15:15	6100567	RLC
Sulfate	4.7	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 15:15	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Barium	0.0409	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Boron	0.0192	0.100	0.0064	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Calcium	17.7	2.50	0.155	mg/L	EPA 6020B		5	10/20/16 10:35	10/21/16 12:51	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Lithium	0.0102	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:19	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 13:55	6100578	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: GWA-2
Date/Time Sampled: 10/18/2016 9:19:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-02
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	221	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	2.7	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 16:17	6100567	RLC
Fluoride	0.13	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 16:17	6100567	RLC
Sulfate	16	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 16:17	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Barium	0.174	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Boron	0.0889	0.100	0.0064	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Calcium	46.6	2.50	0.155	mg/L	EPA 6020B		5	10/20/16 10:35	10/21/16 12:59	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Lithium	0.0119	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:24	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 13:57	6100578	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: GWA-3
Date/Time Sampled: 10/18/2016 9:45:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-03
Date/Time Received: 10/19/2016 10:45:00AM

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	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	4.4	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 16:38	6100567	RLC
Fluoride	0.15	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 16:38	6100567	RLC
Sulfate	110	10	0.51	mg/L	EPA 300.0		10	10/21/16 11:14	10/23/16 22:00	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Barium	0.138	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Boron	0.154	0.100	0.0064	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Calcium	72.4	5.00	0.311	mg/L	EPA 6020B		10	10/20/16 10:35	10/21/16 13:06	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Lithium	0.0186	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:30	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:00	6100578	MTC

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October 26, 2016

Report No.: AZJ0518
Client ID: GWA-4
Date/Time Sampled: 10/18/2016 12:05:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-04
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	455	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	7.4	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 16:58	6100567	RLC
Fluoride	0.16	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 16:58	6100567	RLC
Sulfate	120	10	0.51	mg/L	EPA 300.0		10	10/21/16 11:14	10/23/16 22:20	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Barium	0.0424	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Boron	0.118	0.100	0.0064	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Calcium	77.9	5.00	0.311	mg/L	EPA 6020B		10	10/20/16 10:35	10/21/16 13:14	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Lithium	0.0173	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:47	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:07	6100578	MTC

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October 26, 2016

Report No.: AZJ0518
Client ID: GWA-11
Date/Time Sampled: 10/18/2016 11:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-05
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	115	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 17:19	6100567	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 17:19	6100567	RLC
Sulfate	13	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 17:19	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Barium	0.0311	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Boron	0.0332	0.100	0.0064	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Calcium	20.3	2.50	0.155	mg/L	EPA 6020B		5	10/20/16 10:35	10/21/16 13:21	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Cobalt	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Lithium	0.0106	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:53	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:10	6100578	MTC

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Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: GWC-5
Date/Time Sampled: 10/18/2016 10:39:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-06
Date/Time Received: 10/19/2016 10:45:00AM

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	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	2.8	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 17:40	6100567	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 17:40	6100567	RLC
Sulfate	65	5.0	0.26	mg/L	EPA 300.0		5	10/21/16 11:14	10/23/16 22:41	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Barium	0.0928	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Boron	0.0666	0.100	0.0064	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Calcium	71.6	5.00	0.311	mg/L	EPA 6020B		10	10/20/16 10:35	10/21/16 13:41	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Lithium	0.0269	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 14:59	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:12	6100578	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: GWC-6
Date/Time Sampled: 10/18/2016 2:35:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-07
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	307	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 19:23	6100567	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 19:23	6100567	RLC
Sulfate	120	10	0.51	mg/L	EPA 300.0		10	10/21/16 11:14	10/23/16 23:02	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Barium	0.159	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Boron	0.0366	0.100	0.0064	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Calcium	62.3	5.00	0.311	mg/L	EPA 6020B		10	10/20/16 10:35	10/21/16 13:48	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Lithium	0.0183	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:04	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:15	6100578	MTC

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: GWC-7
Date/Time Sampled: 10/18/2016 12:36:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-08
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	233	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	1.8	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 19:43	6100567	RLC
Fluoride	0.24	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 19:43	6100567	RLC
Sulfate	140	10	0.51	mg/L	EPA 300.0		10	10/21/16 11:14	10/26/16 00:28	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Arsenic	0.0056	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Barium	0.0680	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Beryllium	0.0002	0.0030	0.00008	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Boron	0.0577	0.100	0.0064	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Calcium	22.6	2.50	0.155	mg/L	EPA 6020B		5	10/20/16 10:35	10/21/16 13:56	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Cobalt	0.0368	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Lithium	0.0459	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:10	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:17	6100578	MTC

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Atlanta GA, 30339

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October 26, 2016

Report No.: AZJ0518
Client ID: GWC-10
Date/Time Sampled: 10/18/2016 12:28:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-09
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	113	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 20:04	6100567	RLC
Fluoride	0.16	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 20:04	6100567	RLC
Sulfate	10	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 20:04	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Barium	0.104	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Boron	0.0292	0.100	0.0064	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Calcium	35.4	2.50	0.155	mg/L	EPA 6020B		5	10/20/16 10:35	10/21/16 14:03	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Lithium	0.0094	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:16	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:19	6100578	MTC

PACE ANALYTICAL SERVICES, INC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: GWC-19
Date/Time Sampled: 10/18/2016 1:57:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-10
Date/Time Received: 10/19/2016 10:45:00AM

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	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	2.1	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 20:25	6100567	RLC
Fluoride	0.19	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 20:25	6100567	RLC
Sulfate	19	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 20:25	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Barium	0.145	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Boron	0.171	0.100	0.0064	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Calcium	45.5	2.50	0.155	mg/L	EPA 6020B		5	10/20/16 10:35	10/21/16 14:10	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Lithium	0.0181	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:22	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:22	6100578	MTC

PACE ANALYTICAL SERVICES, INC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: FB-1
Date/Time Sampled: 10/18/2016 2:20:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZJ0518-11
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 20:45	6100567	RLC
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 20:45	6100567	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 20:45	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:27	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:24	6100578	MTC

PACE ANALYTICAL SERVICES, INC.

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October 26, 2016

Report No.: AZJ0518
Client ID: FERB-1
Date/Time Sampled: 10/18/2016 2:40:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZJ0518-12
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 21:06	6100567	RLC
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 21:06	6100567	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 21:06	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Barium	0.0028	0.0100	0.0004	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Calcium	0.198	0.500	0.0311	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Chromium	0.0011	0.0100	0.0009	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Lead	0.0003	0.0050	0.0001	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:33	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:26	6100578	MTC

PACE ANALYTICAL SERVICES, INC.

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Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: GWC-8
Date/Time Sampled: 10/18/2016 2:45:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-13
Date/Time Received: 10/19/2016 10:45:00AM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	200	25	10	mg/L	SM 2540 C		1	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 21:27	6100567	RLC
Fluoride	0.17	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 21:27	6100567	RLC
Sulfate	49	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 21:27	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Barium	0.0939	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Boron	0.0228	0.100	0.0064	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Calcium	52.6	5.00	0.311	mg/L	EPA 6020B		10	10/20/16 10:35	10/21/16 14:18	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Lithium	0.0096	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:39	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:29	6100578	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 26, 2016

Report No.: AZJ0518
Client ID: Dup-1
Date/Time Sampled: 10/18/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0518-14
Date/Time Received: 10/19/2016 10:45:00AM

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	10/20/16 17:47	10/20/16 17:47	6100518	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 21:47	6100567	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	10/21/16 11:14	10/22/16 21:47	6100567	RLC
Sulfate	13	1.0	0.05	mg/L	EPA 300.0		1	10/21/16 11:14	10/22/16 21:47	6100567	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Barium	0.0324	0.0100	0.0004	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Boron	0.0343	0.100	0.0064	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Calcium	20.8	2.50	0.155	mg/L	EPA 6020B		5	10/20/16 10:35	10/21/16 14:25	6100492	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Cobalt	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Lithium	0.0110	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/20/16 10:35	10/20/16 15:56	6100492	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:30	10/24/16 14:36	6100578	MTC

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Report No.: AZJ0518

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100518 - SM 2540 C											
Blank (6100518-BLK1)						Prepared & Analyzed: 10/20/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6100518-BS1)						Prepared & Analyzed: 10/20/16					
Total Dissolved Solids	389	25	10	mg/L	400.00		97	84-108			
Duplicate (6100518-DUP1)		**Source: AZJ0518-03**				Prepared & Analyzed: 10/20/16					
Total Dissolved Solids	424	25	10	mg/L		415			2	10	
Duplicate (6100518-DUP2)		**Source: AZJ0518-07**				Prepared & Analyzed: 10/20/16					
Total Dissolved Solids	307	25	10	mg/L		307			0	10	

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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 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)						Prepared: 10/21/16 Analyzed: 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)		**Source: AZJ0518-01**				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)		**Source: AZJ0580-01**				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**				Prepared: 10/21/16 Analyzed: 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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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100492 - EPA 3005A											
Blank (6100492-BLK1)						Prepared & Analyzed: 10/20/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6100492-BS1)						Prepared & Analyzed: 10/20/16					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000		106	80-120			
Arsenic	0.103	0.0050	0.0016	mg/L	0.10000		103	80-120			
Barium	0.0999	0.0100	0.0004	mg/L	0.10000		100	80-120			
Beryllium	0.102	0.0030	0.00008	mg/L	0.10000		102	80-120			
Boron	1.10	0.100	0.0064	mg/L	1.0000		110	80-120			
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000		102	80-120			
Calcium	1.07	0.500	0.0311	mg/L	1.0000		107	80-120			
Chromium	0.106	0.0100	0.0009	mg/L	0.10000		106	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.103	0.0050	0.0005	mg/L	0.10000		103	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	0.105	0.0050	0.0006	mg/L	0.10000		105	80-120			
Selenium	0.102	0.0100	0.0010	mg/L	0.10000		102	80-120			
Silver	0.104	0.0050	0.0005	mg/L	0.10000		104	80-120			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000		104	80-120			
Vanadium	0.107	0.0100	0.0071	mg/L	0.10000		107	80-120			
Zinc	0.107	0.0100	0.0021	mg/L	0.10000		107	80-120			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000		103	80-120			

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Report No.: AZJ0518

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100492 - EPA 3005A											
Matrix Spike (6100492-MS1)		**Source: AZJ0503-01**			Prepared & Analyzed: 10/20/16						
Antimony	0.0999	0.0030	0.0008	mg/L	0.10000	0.0018	98	75-125			
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000	ND	105	75-125			
Barium	0.123	0.0100	0.0004	mg/L	0.10000	0.0257	97	75-125			
Beryllium	0.0965	0.0030	0.00008	mg/L	0.10000	ND	96	75-125			
Boron	1.05	0.100	0.0064	mg/L	1.0000	0.0174	103	75-125			
Cadmium	0.0983	0.0010	0.00007	mg/L	0.10000	ND	98	75-125			
Calcium	90.7	25.0	1.55	mg/L	1.0000	88.3	241	75-125			QM-02
Chromium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125			
Cobalt	0.0993	0.0100	0.0005	mg/L	0.10000	ND	99	75-125			
Copper	0.0975	0.0050	0.0005	mg/L	0.10000	0.0008	97	75-125			
Lead	0.0991	0.0050	0.0001	mg/L	0.10000	ND	99	75-125			
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000	ND	104	75-125			
Nickel	0.101	0.0050	0.0006	mg/L	0.10000	0.0011	100	75-125			
Selenium	0.103	0.0100	0.0010	mg/L	0.10000	ND	103	75-125			
Silver	0.0984	0.0050	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.102	0.0010	0.0002	mg/L	0.10000	ND	102	75-125			
Vanadium	0.107	0.0100	0.0071	mg/L	0.10000	ND	107	75-125			
Zinc	0.103	0.0100	0.0021	mg/L	0.10000	0.0029	100	75-125			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	ND	103	75-125			
Matrix Spike Dup (6100492-MSD1)		**Source: AZJ0503-01**			Prepared & Analyzed: 10/20/16						
Antimony	0.102	0.0030	0.0008	mg/L	0.10000	0.0018	100	75-125	2	20	
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125	4	20	
Barium	0.126	0.0100	0.0004	mg/L	0.10000	0.0257	100	75-125	2	20	
Beryllium	0.0964	0.0030	0.00008	mg/L	0.10000	ND	96	75-125	0.1	20	
Boron	1.00	0.100	0.0064	mg/L	1.0000	0.0174	98	75-125	4	20	
Cadmium	0.0993	0.0010	0.00007	mg/L	0.10000	ND	99	75-125	1	20	
Calcium	91.2	25.0	1.55	mg/L	1.0000	88.3	291	75-125	0.5	20	QM-02
Chromium	0.0998	0.0100	0.0009	mg/L	0.10000	ND	100	75-125	2	20	
Cobalt	0.0949	0.0100	0.0005	mg/L	0.10000	ND	95	75-125	5	20	
Copper	0.0951	0.0050	0.0005	mg/L	0.10000	0.0008	94	75-125	3	20	
Lead	0.0975	0.0050	0.0001	mg/L	0.10000	ND	97	75-125	2	20	
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000	ND	105	75-125	0.9	20	
Nickel	0.0969	0.0050	0.0006	mg/L	0.10000	0.0011	96	75-125	4	20	
Selenium	0.103	0.0100	0.0010	mg/L	0.10000	ND	103	75-125	0.7	20	
Silver	0.101	0.0050	0.0005	mg/L	0.10000	ND	101	75-125	3	20	
Thallium	0.102	0.0010	0.0002	mg/L	0.10000	ND	102	75-125	0.1	20	
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000	ND	102	75-125	5	20	
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	0.0029	103	75-125	3	20	
Lithium	0.105	0.0500	0.0021	mg/L	0.10000	ND	105	75-125	1	20	

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100492 - EPA 3005A											
Post Spike (6100492-PS1)		**Source: AZJ0503-01**				Prepared & Analyzed: 10/20/16					
Antimony	91.0			ug/L	100.00	1.80	89	80-120			
Arsenic	104			ug/L	100.00	0.0481	104	80-120			
Barium	124			ug/L	100.00	25.7	98	80-120			
Beryllium	95.7			ug/L	100.00	0.0455	96	80-120			
Boron	1010			ug/L	1000.0	17.4	99	80-120			
Cadmium	99.3			ug/L	100.00	0.0630	99	80-120			
Calcium	89000			ug/L	1000.0	88300	74	80-120			QM-02
Chromium	105			ug/L	100.00	0.884	104	80-120			
Cobalt	98.9			ug/L	100.00	0.0886	99	80-120			
Copper	96.9			ug/L	100.00	0.845	96	80-120			
Lead	100			ug/L	100.00	0.0655	100	80-120			
Molybdenum	104			ug/L	100.00	0.875	103	80-120			
Nickel	101			ug/L	100.00	1.13	99	80-120			
Selenium	99.4			ug/L	100.00	0.365	99	80-120			
Silver	103			ug/L	100.00	0.0128	102	80-120			
Thallium	103			ug/L	100.00	0.125	103	80-120			
Vanadium	105			ug/L	100.00	0.333	105	80-120			
Zinc	108			ug/L	100.00	2.91	106	80-120			
Lithium	99.8			ug/L	100.00	0.953	99	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)						Prepared & Analyzed: 10/24/16					
Mercury	0.00249	0.00050	0.000041	mg/L	2.5000E-3		100	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 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-MSD1)			**Source: AZJ0518-01**			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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Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 2

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
Container type							P	P	P		
Preservation							3	7	3		
10/18/16	0949	GW		x	GWA-1	3	1	1	1	1	
10/18/16	0919	GW		x	GWA-2	3	1	1	1	2	
10/18/16	0945	GW		x	GWA-3	3	1	1	1	3	
10/18/16	1205	GW		x	GWA-4	4	1	1	2	4	Extra Radium Bottle Collected for
10/18/16	1100	GW		x	GWA-11	3	1	1	1	5	Lab QA/QC
10/18/16	1039	GW		x	GWC-5	3	1	1	1	6	
10/18/16	1435	GW		x	GWC-6	3	1	1	1	7	
10/18/16	1236	GW		x	GWC-7	3	1	1	1	8	
10/18/16	1228	GW		x	GWC-10	3	1	1	1	9	
10/18/16	1357	GW		x	GWC-19	3	1	1	1	10	
10/18/16	1420	W		x	FB-1	3	1	1	1	11	
10/18/16	1440	W		x	FERB-1	3	1	1	1	12	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: Assoc. ... T. Wurdeitz, A. Rogers, W. Vigo — DATE/TIME: 10/19/16 1500

RELINQUISHED BY: Will Vigo (EZM) — DATE/TIME: 10/19/16 0600

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: Charles Hawks — DATE/TIME: 10/19/16 1045

pH Checked: Yes No NA — Ice: Yes No NA — Temperature: 1°C Min: 1°C Max:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (Pace) CLIENT OTHER FS

Custody Seal: Intact Broken Not Present — # of Coolers: 4 — Cooler ID:

FOR LAB USE ONLY

LAB #: AZJ0518

Entered into LIMS: CH

Tracking #:

Hammond Groundwater Sampling Forms.xlsx

CHAIN OF CUSTODY RECORD

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CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)							LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE							P	P	P								
PRESERVATION							3	7	3								
10/18/16	1445	GW		x	GWC-8	3	1	1	1							13	
10/18/16	—	GW		x	DUP-1	3	1	1	1							14	

CONTAINER TYPE:
- P - PLASTIC
- A - AMBER GLASS
- G - CLEAR GLASS
- V - VOA VIAL
- S - STERILE
- O - OTHER

PRESERVATION:
- 1 - HCl, ≤6°C
- 2 - H_2SO_4, ≤6°C
- 3 - HNO_3
- 4 - NaOH, ≤6°C
- 5 - NaOH/ZnAc, ≤6°C
- 6 - $Na_2S_2O_3$, ≤6°C
- 7 - ≤6°C not frozen

*MATRIX CODES:
- DW - DRINKING WATER
- WW - WASTEWATER
- GW - GROUNDWATER
- SW - SURFACE WATER
- ST - STORM WATER
- W - WATER
- S - SOIL
- SL - SLUDGE
- SD - SOLID
- A - AIR
- L - LIQUID
- P - PRODUCT

SAMPLED BY AND TITLE: A. Shared ; ts AG M. Rogers AG T. Weddington W. Vignon DATE/TIME: 10/18/16 1500

RELINQUISHED BY: Will Vinc (ERN) DATE/TIME: 10/19/16 0600

RECEIVED BY: DATE/TIME:

RELINQUISHED BY: DATE/TIME:

RECEIVED BY LAB: [signature] DATE/TIME: 10/19/16 1045

pH Checked: (Yes) No NA Ice: (Yes) No NA Temperature: 1°C Min: 1°C Max:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER Pace CLIENT OTHER FS

Custody Seal: (Intact) Broken Not Present # of Coolers: 4 Cooler ID:

FOR LAB USE ONLY
LAB #: AZJ0578
Entered into LIMS: CJH
Tracking #:

Hammond Groundwater Sampling Forms.xlsx

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 10/26/2016 4:07:11PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 10/19/16 10:45

Work Order: AZJ0518
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 14 **#Containers:** 43

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

November 22, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on October 20, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30199878001	**GWA-1**	Water	10/18/16 09:49	10/20/16 10:25
30199878002	**GWA-2**	Water	10/18/16 09:19	10/20/16 10:25
30199878003	**GWA-3**	Water	10/18/16 09:45	10/20/16 10:25
30199878004	**GWA-4**	Water	10/18/16 12:05	10/20/16 10:25
30199878005	**GWA-11**	Water	10/18/16 11:00	10/20/16 10:25
30199878006	**GWC-5**	Water	10/18/16 10:39	10/20/16 10:25
30199878007	**GWC-6**	Water	10/18/16 14:35	10/20/16 10:25
30199878008	**GWC-7**	Water	10/18/16 12:36	10/20/16 10:25
30199878009	**GWC-10**	Water	10/18/16 12:28	10/20/16 10:25
30199878010	**GWC-19**	Water	10/18/16 13:57	10/20/16 10:25
30199878011	**FB-1**	Water	10/18/16 14:20	10/20/16 10:25
30199878012	**FERB-1**	Water	10/18/16 14:40	10/20/16 10:25
30199878013	**GWC-8**	Water	10/18/16 14:45	10/20/16 10:25
30199878014	**Dup-1**	Water	10/18/16 00:00	10/20/16 10:25

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SAMPLE ANALYTE COUNT

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30199878001	GWA-1	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878002	GWA-2	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878003	GWA-3	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878004	GWA-4	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878005	GWA-11	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878006	GWC-5	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878007	GWC-6	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878008	GWC-7	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878009	GWC-10	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878010	GWC-19	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878011	FB-1	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878012	FERB-1	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878013	GWC-8	EPA 9315	JC2	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30199878014	**Dup-1**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

Sample: GWA-1 **Lab ID: 30199878001** Collected: 10/18/16 09:49 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0252 ± 0.105 (0.332) C:93% T:NA**	pCi/L	11/04/16 08:24	13982-63-3	
Radium-228	EPA 9320	**0.513 ± 0.504 (1.00) C:72% T:78%**	pCi/L	11/19/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**0.513 ± 0.609 (1.33)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: GWA-2 **Lab ID: 30199878002** Collected: 10/18/16 09:19 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.295 ± 0.218 (0.353) C:84% T:NA**	pCi/L	11/04/16 08:24	13982-63-3	
Radium-228	EPA 9320	**1.20 ± 0.542 (0.910) C:76% T:83%**	pCi/L	11/19/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**1.50 ± 0.760 (1.26)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: GWA-3 **Lab ID: 30199878003** Collected: 10/18/16 09:45 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.263 ± 0.227 (0.418) C:87% T:NA**	pCi/L	11/04/16 08:24	13982-63-3	
Radium-228	EPA 9320	**1.98 ± 0.827 (1.33) C:54% T:73%**	pCi/L	11/19/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**2.24 ± 1.05 (1.75)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: GWA-4 **Lab ID: 30199878004** Collected: 10/18/16 12:05 Received: 10/20/16 10:25 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 ± 0.184 (0.351) C:84% T:NA**	pCi/L	11/04/16 08:24	13982-63-3	
Radium-228	EPA 9320	**1.24 ± 0.611 (1.06) C:66% T:79%**	pCi/L	11/19/16 19:42	15262-20-1	
Total Radium	Total Radium Calculation	**1.41 ± 0.795 (1.41)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: GWA-11 **Lab ID: 30199878005** Collected: 10/18/16 11:00 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.251 ± 0.199 (0.330) C:91% T:NA**	pCi/L	11/04/16 08:24	13982-63-3	
Radium-228	EPA 9320	**0.500 ± 0.463 (0.916) C:72% T:84%**	pCi/L	11/19/16 19:42	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

Sample: GWA-11 **Lab ID: 30199878005** Collected: 10/18/16 11:00 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.751 ± 0.662 (1.25)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: GWC-5 **Lab ID: 30199878006** Collected: 10/18/16 10:39 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.274 ± 0.204 (0.330) C:92% T:NA**	pCi/L	11/04/16 08:24	13982-63-3	
Radium-228	EPA 9320	**0.715 ± 0.464 (0.860) C:73% T:81%**	pCi/L	11/19/16 19:43	15262-20-1	
Total Radium	Total Radium Calculation	**0.989 ± 0.668 (1.19)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: GWC-6 **Lab ID: 30199878007** Collected: 10/18/16 14:35 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.321 ± 0.212 (0.313) C:93% T:NA**	pCi/L	11/04/16 08:03	13982-63-3	
Radium-228	EPA 9320	**0.177 ± 0.501 (1.06) C:74% T:79%**	pCi/L	11/19/16 19:43	15262-20-1	
Total Radium	Total Radium Calculation	**0.498 ± 0.713 (1.37)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: GWC-7 **Lab ID: 30199878008** Collected: 10/18/16 12:36 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.213 ± 0.239 (0.495) C:93% T:NA**	pCi/L	11/04/16 08:04	13982-63-3	
Radium-228	EPA 9320	**0.584 ± 0.621 (1.24) C:56% T:74%**	pCi/L	11/19/16 19:43	15262-20-1	
Total Radium	Total Radium Calculation	**0.797 ± 0.860 (1.74)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: GWC-10 **Lab ID: 30199878009** Collected: 10/18/16 12:28 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0676 ± 0.157 (0.375) C:93% T:NA**	pCi/L	11/04/16 08:04	13982-63-3	
Radium-228	EPA 9320	**0.744 ± 0.548 (1.05) C:64% T:84%**	pCi/L	11/19/16 19:43	15262-20-1	
Total Radium	Total Radium Calculation	**0.812 ± 0.705 (1.43)**	pCi/L	11/21/16 15:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

Sample: GWC-19 **Lab ID: 30199878010** Collected: 10/18/16 13:57 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.184 ± 0.174 (0.312) C:85% T:NA**	pCi/L	11/04/16 08:09	13982-63-3	
Radium-228	EPA 9320	**1.23 ± 0.560 (0.932) C:73% T:76%**	pCi/L	11/19/16 19:43	15262-20-1	
Total Radium	Total Radium Calculation	**1.41 ± 0.734 (1.24)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: FB-1 **Lab ID: 30199878011** Collected: 10/18/16 14:20 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.127 ± 0.188 (0.412) C:88% T:NA**	pCi/L	11/04/16 08:09	13982-63-3	
Radium-228	EPA 9320	**0.939 ± 0.611 (1.14) C:61% T:76%**	pCi/L	11/19/16 19:43	15262-20-1	
Total Radium	Total Radium Calculation	**1.07 ± 0.799 (1.55)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: FERB-1 **Lab ID: 30199878012** Collected: 10/18/16 14:40 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0760 ± 0.191 (0.456) C:88% T:NA**	pCi/L	11/04/16 08:32	13982-63-3	
Radium-228	EPA 9320	**0.601 ± 0.529 (1.04) C:66% T:75%**	pCi/L	11/19/16 19:43	15262-20-1	
Total Radium	Total Radium Calculation	**0.677 ± 0.720 (1.50)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: GWC-8 **Lab ID: 30199878013** Collected: 10/18/16 14:45 Received: 10/20/16 10:25 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 ± 0.229 (0.488) C:82% T:NA**	pCi/L	11/04/16 08:32	13982-63-3	
Radium-228	EPA 9320	**0.330 ± 0.536 (1.11) C:59% T:77%**	pCi/L	11/19/16 19:43	15262-20-1	
Total Radium	Total Radium Calculation	**0.502 ± 0.765 (1.60)**	pCi/L	11/21/16 15:06	7440-14-4	

Sample: Dup-1 **Lab ID: 30199878014** Collected: 10/18/16 00:00 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0532 ± 0.199 (0.492) C:92% T:NA**	pCi/L	11/04/16 08:33	13982-63-3	
Radium-228	EPA 9320	**0.966 ± 0.580 (1.06) C:62% T:80%**	pCi/L	11/19/16 19:43	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

Sample: Dup-1 **Lab ID: 30199878014** Collected: 10/18/16 00:00 Received: 10/20/16 10:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**1.02 ± 0.779 (1.55)**	pCi/L	11/21/16 15:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

QC Batch: 238842 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30199878001, 30199878002, 30199878003, 30199878004, 30199878005, 30199878006, 30199878007, 30199878008, 30199878009, 30199878010, 30199878011, 30199878012, 30199878013, 30199878014

METHOD BLANK: 1173698 Matrix: Water
Associated Lab Samples: 30199878001, 30199878002, 30199878003, 30199878004, 30199878005, 30199878006, 30199878007, 30199878008, 30199878009, 30199878010, 30199878011, 30199878012, 30199878013, 30199878014

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0138 ± 0.0910 (0.293) C:93% T:NA	pCi/L	11/04/16 08:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

QC Batch: 239879 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30199878001, 30199878002, 30199878003, 30199878004, 30199878005, 30199878006, 30199878007, 30199878008, 30199878009, 30199878010, 30199878011, 30199878012, 30199878013, 30199878014

METHOD BLANK: 1178545 Matrix: Water
Associated Lab Samples: 30199878001, 30199878002, 30199878003, 30199878004, 30199878005, 30199878006, 30199878007, 30199878008, 30199878009, 30199878010, 30199878011, 30199878012, 30199878013, 30199878014

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Plant Hammond - Huffaker
Pace Project No.: 30199878

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WO#:30199878

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AZJ0518 Workorder Name: Georgia Power - CCR Owner Received Date: Results Requested By: 11/18/2016

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Requested Analysis	LAB USE ONLY
1	GWA-1	G	10/18/2016 9:49	AZJ0518-01	GW			001
2	GWA-2	G	10/18/2016 9:19	AZJ0518-02	GW			002
3	GWA-3	G	10/18/2016 9:45	AZJ0518-03	GW			003
4	GWA-4	G	10/18/2016 12:05	AZJ0518-04	GW			004
5	GWA-11	G	10/18/2016 11:00	AZJ0518-05	GW			005
6	GWC-5	G	10/18/2016 10:39	AZJ0518-06	GW			006
7	GWC-6	G	10/18/2016 14:35	AZJ0518-07	GW			007
8	GWC-7	G	10/18/2016 12:36	AZJ0518-08	GW			008
9	GWC-10	G	10/18/2016 12:28	AZJ0518-09	GW			009
10	GWC-19	G	10/18/2016 13:57	AZJ0518-10	GW			010

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	Charles Hinds	10/19/16 1730	Karen E. Hill	10-20-16 1025	
2					
3					

Cooler Temperature on Receipt N/A °C	Custody Seal Y or (N)	Received on Ice Y or (N)	Sample Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

30199878

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AZJ0518 Workorder Name: Georgia Power - CCR Owner Received Date: Results Requested By: 11/18/2016

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Requested Analysis	LAB USE ONLY (KEH 10-21-16)
11	FB-1	G	10/18/2016 14:20	AZJ0518-11	W			~~012~~ 011
12	FERB-1	G	10/18/2016 14:40	AZJ0518-12	W			012
13	GWC-8	G	10/18/2016 14:45	AZJ0518-13	GW			013
14	Dup-1	G	10/18/2016 0:00	AZJ0518-14	GW			014
15								
16								
17								
18								
19								
20								

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	Charles Hardin	10/19/16 1730	Kevin E. Thi	10-20-16 1025	
2					
3					

Cooler Temperature on Receipt N/A °C	Custody Seal Y or (N)	Received on Ice Y or (N)	Sample Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: GA Power Project # 30199878

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 6812 5099 9000

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: AGNR 10-20-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:				2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:		X		4. jm 10/24/16
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. pH<2
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed AGNR Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: AGNR Date: 10-20-16

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	JC2
Date:	11/3/2016
Worklist:	32221
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1173698
MB concentration:	-0.014
M/B Counting Uncertainty:	0.091
MB MDC:	0.293
MB Numerical Performance Indicator:	-0.30
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32221	LCSD32221
Count Date:	11/4/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.675	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.502	
Target Conc. (pCi/L, g, F):	8.897	
Uncertainty (Calculated):	0.419	
Result (pCi/L, g, F):	8.029	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.830	
Numerical Performance Indicator:	-1.83	
Percent Recovery:	90.24%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30199878004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30199878004DUP	
Sample Result (pCi/L, g, F):	0.172	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.182	
Sample Duplicate Result (pCi/L, g, F):	0.078	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.133	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	0.820	30199878004
Duplicate RPD:	75.48%	30199878004DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

11/22/16

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	11/16/2016
Worklist:	32404
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1178545
MB concentration:	0.825
M/B Counting Uncertainty:	0.498
MB MDC:	0.961
MB Numerical Performance Indicator:	3.25
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32404	LCSD32404
Count Date:	11/19/2016	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	26.037	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.803	
Target Conc. (pCi/L, g, F):	6.489	
Uncertainty (Calculated):	0.467	
Result (pCi/L, g, F):	6.876	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.889	
Numerical Performance Indicator:	0.75	
Percent Recovery:	105.96%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30199878004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30199878004DUP	
Sample Result (pCi/L, g, F):	1.237	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.569	
Sample Duplicate Result (pCi/L, g, F):	1.514	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.603	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.655	30199878004
Duplicate RPD:	20.15%	30199878004DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

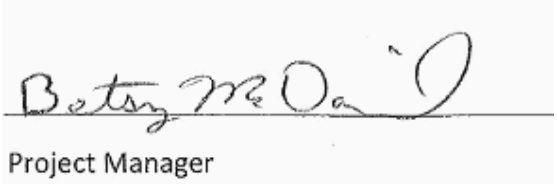
Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: **Mr. Joju Abraham**

Report Number: **AZJ0582**
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

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 31, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-9	AZJ0582-01	Ground Water	10/19/16 09:44	10/20/16 11:40
GWC-18	AZJ0582-02	Ground Water	10/19/16 11:08	10/20/16 11:40
GWC-20	AZJ0582-03	Ground Water	10/19/16 12:25	10/20/16 11:40
GWC-21	AZJ0582-04	Ground Water	10/19/16 13:45	10/20/16 11:40
GWC-22	AZJ0582-05	Ground Water	10/19/16 11:23	10/20/16 11:40
GWC-23	AZJ0582-06	Ground Water	10/19/16 12:27	10/20/16 11:40
FB-2	AZJ0582-07	Water	10/19/16 12:45	10/20/16 11:40
FERB-2	AZJ0582-08	Water	10/19/16 13:15	10/20/16 11:40
Dup-2	AZJ0582-09	Ground Water	10/19/16 00:00	10/20/16 11:40

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 31, 2016

Report No.: AZJ0582
Client ID: GWC-9
Date/Time Sampled: 10/19/2016 9:44:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0582-01
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	272	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	1.1	0.25	0.01	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 12:21	6100589	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/23/16 09:34	10/23/16 12:21	6100589	RLC
Sulfate	69	5.0	0.26	mg/L	EPA 300.0		5	10/23/16 09:34	10/26/16 18:42	6100589	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Barium	0.0644	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Boron	0.0152	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Calcium	35.0	2.50	0.155	mg/L	EPA 6020B		5	10/21/16 09:35	10/25/16 14:22	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Lithium	0.0158	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:40	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:10	6100579	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 31, 2016

Report No.: AZJ0582
Client ID: GWC-18
Date/Time Sampled: 10/19/2016 11:08:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0582-02
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	231	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.01	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 12:42	6100589	RLC
Fluoride	0.14	0.30	0.02	mg/L	EPA 300.0	J	1	10/23/16 09:34	10/23/16 12:42	6100589	RLC
Sulfate	9.9	1.0	0.05	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 12:42	6100589	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Barium	0.0840	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Boron	0.133	0.100	0.0064	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Calcium	38.7	2.50	0.155	mg/L	EPA 6020B		5	10/21/16 09:35	10/25/16 14:28	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Lithium	0.0148	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:46	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:13	6100579	MTC

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 31, 2016

Report No.: AZJ0582
Client ID: GWC-20
Date/Time Sampled: 10/19/2016 12:25:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0582-03
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	276	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 13:02	6100589	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	10/23/16 09:34	10/23/16 13:02	6100589	RLC
Sulfate	32	1.0	0.05	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 13:02	6100589	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Barium	0.117	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Boron	0.0180	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Calcium	49.7	5.00	0.311	mg/L	EPA 6020B		10	10/21/16 09:35	10/25/16 14:34	6100552	CSW
Chromium	0.0064	0.0100	0.0009	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Molybdenum	0.0018	0.0100	0.0017	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Lithium	0.0105	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:52	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:15	6100579	MTC

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October 31, 2016

Report No.: AZJ0582
Client ID: GWC-21
Date/Time Sampled: 10/19/2016 1:45:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0582-04
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	314	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	2.4	0.25	0.01	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 13:23	6100589	RLC
Fluoride	0.13	0.30	0.02	mg/L	EPA 300.0	J	1	10/23/16 09:34	10/23/16 13:23	6100589	RLC
Sulfate	31	1.0	0.05	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 13:23	6100589	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Barium	0.186	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Boron	0.0870	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Calcium	63.0	5.00	0.311	mg/L	EPA 6020B		10	10/21/16 09:35	10/25/16 14:50	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Molybdenum	0.0101	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Lithium	0.0033	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 15:57	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:17	6100579	MTC

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Atlanta GA, 30339

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October 31, 2016

Report No.: AZJ0582
Client ID: GWC-22
Date/Time Sampled: 10/19/2016 11:23:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0582-05
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	269	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 13:44	6100589	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/23/16 09:34	10/23/16 13:44	6100589	RLC
Sulfate	7.5	1.0	0.05	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 13:44	6100589	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Barium	0.0910	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Boron	0.0733	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Calcium	47.3	5.00	0.311	mg/L	EPA 6020B		10	10/21/16 09:35	10/25/16 14:55	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Lithium	0.0143	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 16:03	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:20	6100579	MTC

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Atlanta GA, 30339

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October 31, 2016

Report No.: AZJ0582
Client ID: GWC-23
Date/Time Sampled: 10/19/2016 12:27:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0582-06
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	209	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 14:04	6100589	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/23/16 09:34	10/23/16 14:04	6100589	RLC
Sulfate	5.8	1.0	0.05	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 14:04	6100589	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Barium	0.0720	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Boron	0.0203	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Calcium	33.4	2.50	0.155	mg/L	EPA 6020B		5	10/21/16 09:35	10/21/16 16:45	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Lithium	0.0168	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 16:09	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:27	6100579	MTC

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Atlanta GA, 30339

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October 31, 2016

Report No.: AZJ0582
Client ID: FB-2
Date/Time Sampled: 10/19/2016 12:45:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZJ0582-07
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	ND	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	10/23/16 09:34	10/23/16 14:25	6100589	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 14:25	6100589	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 14:25	6100589	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Calcium	0.0813	0.500	0.0311	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:15	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:29	6100579	MTC

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October 31, 2016

Report No.: AZJ0582
Client ID: FERB-2
Date/Time Sampled: 10/19/2016 1:15:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZJ0582-08
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	ND	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	10/23/16 09:34	10/23/16 14:46	6100589	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 14:46	6100589	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 14:46	6100589	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Barium	0.0007	0.0100	0.0004	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Calcium	0.129	0.500	0.0311	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:33	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:32	6100579	MTC

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 31, 2016

Report No.: AZJ0582
Client ID: Dup-2
Date/Time Sampled: 10/19/2016 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AZJ0582-09
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	190	25	10	mg/L	SM 2540 C		1	10/24/16 12:53	10/24/16 12:53	6100605	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 15:06	6100589	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	10/23/16 09:34	10/23/16 15:06	6100589	RLC
Sulfate	5.9	1.0	0.05	mg/L	EPA 300.0		1	10/23/16 09:34	10/23/16 15:06	6100589	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Barium	0.0745	0.0100	0.0004	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Boron	0.0184	0.100	0.0064	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Calcium	37.2	2.50	0.155	mg/L	EPA 6020B		5	10/21/16 09:35	10/25/16 15:01	6100552	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Lithium	0.0175	0.0500	0.0021	mg/L	EPA 6020B	J	1	10/21/16 09:35	10/21/16 16:39	6100552	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	10/24/16 10:35	10/24/16 15:34	6100579	MTC

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Report No.: AZJ0582

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)						Prepared & Analyzed: 10/24/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6100605-BS1)						Prepared & Analyzed: 10/24/16					
Total Dissolved Solids	397	25	10	mg/L	400.00		99	84-108			
Duplicate (6100605-DUP1)			**Source: AZJ0580-03**			Prepared & Analyzed: 10/24/16					
Total Dissolved Solids	296	25	10	mg/L		357			19	10	QR-03
Duplicate (6100605-DUP2)			**Source: AZJ0582-01**			Prepared & Analyzed: 10/24/16					
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)						Prepared & Analyzed: 10/26/16					
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)			**Source: AZJ0582-01RE1**			Prepared & Analyzed: 10/26/16					
Total Dissolved Solids	281	10	10	mg/L		268			5	10	
Batch 6100749 - SM 2540 C											
Blank (6100749-BLK1)						Prepared & Analyzed: 10/27/16					
Total Dissolved Solids	ND	10	10	mg/L							

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Report No.: AZJ0582

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100749 - SM 2540 C											
LCS (6100749-BS1)						Prepared & Analyzed: 10/27/16					
Total Dissolved Solids	382	10	10	mg/L	400.00		96	84-108			
Duplicate (6100749-DUP1)			**Source: AZJ0582-07RE1**			Prepared & Analyzed: 10/27/16					
Total Dissolved Solids	ND	10	10	mg/L		ND				10	
Duplicate (6100749-DUP2)			**Source: AZJ0582-08RE1**			Prepared & Analyzed: 10/27/16					
Total Dissolved Solids	ND	10	10	mg/L		ND				10	

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Report No.: AZJ0582

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100589 - EPA 300.0											
Blank (6100589-BLK1)						Prepared & Analyzed: 10/23/16					
Chloride	ND	1.0	0.01	mg/L							
Fluoride	ND	0.10	0.02	mg/L							
Sulfate	ND	5.0	0.05	mg/L							
LCS (6100589-BS1)						Prepared & Analyzed: 10/23/16					
Chloride	10.1	1.0	0.01	mg/L	10.010		101	90-110			
Fluoride	9.97	0.10	0.02	mg/L	10.020		99	90-110			
Sulfate	10.0	5.0	0.05	mg/L	10.020		100	90-110			
Matrix Spike (6100589-MS1)		**Source: AZJ0623-02**				Prepared & Analyzed: 10/23/16					
Chloride	12.9	1.0	0.01	mg/L	10.010	2.83	101	90-110			
Fluoride	10.6	0.10	0.02	mg/L	10.020	0.13	105	90-110			
Sulfate	54.3	5.0	0.05	mg/L	10.020	49.3	50	90-110			QM-02
Matrix Spike (6100589-MS2)		**Source: AZJ0623-05**				Prepared & Analyzed: 10/23/16					
Chloride	15.6	1.0	0.01	mg/L	10.010	5.70	99	90-110			
Fluoride	10.6	0.10	0.02	mg/L	10.020	0.03	106	90-110			
Sulfate	99.7	5.0	0.05	mg/L	10.020	100	NR	90-110			QM-02
Matrix Spike Dup (6100589-MSD1)		**Source: AZJ0623-02**				Prepared & Analyzed: 10/23/16					
Chloride	12.9	1.0	0.01	mg/L	10.010	2.83	100	90-110	0.2	15	
Fluoride	10.6	0.10	0.02	mg/L	10.020	0.13	105	90-110	0.2	15	
Sulfate	54.2	5.0	0.05	mg/L	10.020	49.3	49	90-110	0.08	15	QM-02

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Report No.: AZJ0582

Metals, Total - Quality Control

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							
LCS (6100552-BS1)						Prepared & Analyzed: 10/21/16					
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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Report No.: AZJ0582

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100552 - EPA 3005A											
Matrix Spike (6100552-MS1)		**Source: AZJ0580-01**			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)		**Source: AZJ0580-01**			Prepared & Analyzed: 10/21/16						
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	
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	0.0017	mg/L	0.10000	ND	106	75-125	4	20	
Nickel	0.0992	0.0050	0.0006	mg/L	0.10000	ND	99	75-125	0.2	20	
Selenium	0.102	0.0100	0.0010	mg/L	0.10000	ND	102	75-125	0.1	20	
Silver	0.102	0.0050	0.0005	mg/L	0.10000	ND	102	75-125	2	20	
Thallium	0.0981	0.0010	0.0002	mg/L	0.10000	ND	98	75-125	0.8	20	
Vanadium	0.106	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	

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100552 - EPA 3005A											
Post Spike (6100552-PS1)		**Source: AZJ0580-01**				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 6100579 - EPA 7470A											
Blank (6100579-BLK1)						Prepared & Analyzed: 10/24/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6100579-BS1)						Prepared & Analyzed: 10/24/16					
Mercury	0.00242	0.00050	0.000041	mg/L	2.5000E-3		97	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6100579 - EPA 7470A											
Matrix Spike (6100579-MS1)			**Source: AZJ0582-01**			Prepared & Analyzed: 10/24/16					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (6100579-MSD1)			**Source: AZJ0582-01**			Prepared & Analyzed: 10/24/16					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125	0.6	20	
Post Spike (6100579-PS1)			**Source: AZJ0582-01**			Prepared & Analyzed: 10/24/16					
Mercury	1.80			ug/L	1.6667	-0.0129	109	80-120			

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Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.

QM-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.

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 31, 2016

Report Notes

The Radium container collected on 10/19/16 at 0944 was labeled GWC-7 but was listed as GWC-9 on the COC. The COC was used for login purposes. CFH

CHAIN OF CUSTODY RECORD

Pace Analytical™
Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4, & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)						LAB ID NUMBER
CONTAINER TYPE:								P	P	P						
PRESERVATION:								3	7	3						
10/19/16	09:44	GW		x	GWC-9	3		1	1	1						1
10/19/16	11:08	GW		x	GWC-18	3		1	1	1						2
10/19/16	12:25	GW		x	GWC-20	4		1	1	2						3
10/19/16	13:45	GW		x	GWC-21	3		1	1	1						4
10/19/16	11:23	GW		x	GWC-22	3		1	1	1						5
10/19/16	12:27	GW		x	GWC-23	3		1	1	1						6
10/19/16	12:45	W		x	FB-2	3		1	1	1						7
10/19/16	13:15	W		x	FERB-2	3		1	1	1						8
10/19/16	--	GW		x	DUP-2	3		1	1	1						9

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES:
DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION
1 Rad labeled GWC-7
2 CH 10/20/16
3 Extra Radium volume collected for Lab QA/QC

SAMPLED BY AND TITLE: M. Rogers MR T.Wardell TW W.Virgo WV
DATE/TIME: 10/19/16 1345
RELINQUISHED BY: W.Virgo (ERM)
DATE/TIME: 10/20/16 0600

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

RECEIVED BY/LAB: Charles Hanby
DATE/TIME: 10/20/16 1140
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
pH checked: Yes No NA
Ice: Yes No NA
Temperature: 2°C Min Max
Custody Seal: Present Broken Not Present
# of Coolers: 4
Cooler ID:

FOR LAB USE ONLY
LAB #: HZJ0582
Entered into LIMS: CH
Tracking #:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 10/31/2016 5:29:26PM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 10/20/16 11:40

Work Order: AZJ0582
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 9 **#Containers:** 28

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	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:

The Radium container collected on 10/19/16 at 0944 was labeled GWC-7 but was listed as GWC-9 on the COC. The COC was used for login purposes. CFH

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
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.: 30200041

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
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30200041

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 30200041

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30200041001	**GWC-9**	Water	10/19/16 09:44	10/21/16 10:40
30200041002	**GWC-18**	Water	10/19/16 11:08	10/21/16 10:40
30200041003	**GWC-20**	Water	10/19/16 12:25	10/21/16 10:40
30200041004	**GWC-21**	Water	10/19/16 13:45	10/21/16 10:40
30200041005	**GWC-23**	Water	10/19/16 12:27	10/21/16 10:40
30200041006	**FB-2**	Water	10/19/16 12:45	10/21/16 10:40
30200041007	**FERB-2**	Water	10/19/16 13:15	10/21/16 10:40
30200041008	**Dup-2**	Water	10/19/16 00:00	10/21/16 10:40
30200041009	**GWC-22**	Water	10/19/16 11:23	10/21/16 10:40

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30200041

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30200041001	**GWC-9**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200041002	**GWC-18**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200041003	**GWC-20**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200041004	**GWC-21**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200041005	**GWC-23**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200041006	**FB-2**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200041007	**FERB-2**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200041008	**Dup-2**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30200041009	**GWC-22**	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30200041

Sample: GWC-9 **Lab ID: 30200041001** Collected: 10/19/16 09:44 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0249 ± 0.115 (0.302) C:94% T:NA**	pCi/L	11/04/16 16:15	13982-63-3	
Radium-228	EPA 9320	**0.785 ± 0.476 (0.854) C:64% T:79%**	pCi/L	11/19/16 19:44	15262-20-1	
Total Radium	Total Radium Calculation	**0.810 ± 0.591 (1.16)**	pCi/L	11/21/16 15:20	7440-14-4	

Sample: GWC-18 **Lab ID: 30200041002** Collected: 10/19/16 11:08 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0330 ± 0.0586 (0.119) C:92% T:NA**	pCi/L	11/04/16 23:09	13982-63-3	
Radium-228	EPA 9320	**0.363 ± 0.446 (0.907) C:66% T:84%**	pCi/L	11/19/16 19:44	15262-20-1	
Total Radium	Total Radium Calculation	**0.396 ± 0.505 (1.03)**	pCi/L	11/21/16 15:20	7440-14-4	

Sample: GWC-20 **Lab ID: 30200041003** Collected: 10/19/16 12:25 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0584 ± 0.0638 (0.121) C:87% T:NA**	pCi/L	11/04/16 23:09	13982-63-3	
Radium-228	EPA 9320	**0.00962 ± 0.382 (0.838) C:67% T:90%**	pCi/L	11/19/16 19:44	15262-20-1	
Total Radium	Total Radium Calculation	**0.0680 ± 0.446 (0.959)**	pCi/L	11/21/16 15:20	7440-14-4	

Sample: GWC-21 **Lab ID: 30200041004** Collected: 10/19/16 13:45 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.192 ± 0.0842 (0.117) C:90% T:NA**	pCi/L	11/04/16 23:09	13982-63-3	
Radium-228	EPA 9320	**0.476 ± 0.484 (0.966) C:73% T:78%**	pCi/L	11/19/16 19:44	15262-20-1	
Total Radium	Total Radium Calculation	**0.668 ± 0.568 (1.08)**	pCi/L	11/21/16 15:20	7440-14-4	

Sample: GWC-23 **Lab ID: 30200041005** Collected: 10/19/16 12:27 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.135 ± 0.0757 (0.119) C:90% T:NA**	pCi/L	11/04/16 23:09	13982-63-3	
Radium-228	EPA 9320	**0.554 ± 0.414 (0.786) C:70% T:88%**	pCi/L	11/19/16 19:45	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30200041

Sample: GWC-23 **Lab ID: 30200041005** Collected: 10/19/16 12:27 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.689 ± 0.490 (0.905)**	pCi/L	11/21/16 15:20	7440-14-4	

Sample: FB-2 **Lab ID: 30200041006** Collected: 10/19/16 12:45 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0600 ± 0.143 (0.341) C:76% T:NA**	pCi/L	11/05/16 18:42	13982-63-3	
Radium-228	EPA 9320	**1.00 ± 0.528 (0.917) C:65% T:80%**	pCi/L	11/19/16 19:45	15262-20-1	
Total Radium	Total Radium Calculation	**1.06 ± 0.671 (1.26)**	pCi/L	11/21/16 15:20	7440-14-4	

Sample: FERB-2 **Lab ID: 30200041007** Collected: 10/19/16 13:15 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0353 ± 0.100 (0.247) C:89% T:NA**	pCi/L	11/05/16 18:42	13982-63-3	
Radium-228	EPA 9320	**1.27 ± 0.604 (1.02) C:67% T:75%**	pCi/L	11/19/16 19:45	15262-20-1	
Total Radium	Total Radium Calculation	**1.31 ± 0.704 (1.27)**	pCi/L	11/21/16 15:20	7440-14-4	

Sample: Dup-2 **Lab ID: 30200041008** Collected: 10/19/16 00:00 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.00185 ± 0.0946 (0.269) C:82% T:NA**	pCi/L	11/05/16 18:42	13982-63-3	
Radium-228	EPA 9320	**0.467 ± 0.430 (0.845) C:64% T:87%**	pCi/L	11/19/16 19:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.469 ± 0.525 (1.11)**	pCi/L	11/21/16 15:20	7440-14-4	

Sample: GWC-22 **Lab ID: 30200041009** Collected: 10/19/16 11:23 Received: 10/21/16 10:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.00166 ± 0.0848 (0.244) C:93% T:NA**	pCi/L	11/05/16 18:42	13982-63-3	
Radium-228	EPA 9320	**0.949 ± 0.491 (0.841) C:70% T:76%**	pCi/L	11/19/16 19:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.949 ± 0.576 (1.09)**	pCi/L	11/21/16 15:20	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30200041

QC Batch: 238844 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30200041002, 30200041003, 30200041004, 30200041005, 30200041006, 30200041007, 30200041008, 30200041009

METHOD BLANK: 1173703 Matrix: Water
Associated Lab Samples: 30200041002, 30200041003, 30200041004, 30200041005, 30200041006, 30200041007, 30200041008, 30200041009

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30200041

QC Batch: 238842 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30200041001

METHOD BLANK: 1173698 Matrix: Water
Associated Lab Samples: 30200041001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0138 ± 0.0910 (0.293) C:93% T:NA	pCi/L	11/04/16 08:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30200041

QC Batch: 239918 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30200041001, 30200041002, 30200041003, 30200041004, 30200041005, 30200041006, 30200041007, 30200041008, 30200041009

METHOD BLANK: 1178677 Matrix: Water
Associated Lab Samples: 30200041001, 30200041002, 30200041003, 30200041004, 30200041005, 30200041006, 30200041007, 30200041008, 30200041009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.423 ± 0.433 (0.862) C:70% T:77%	pCi/L	11/19/16 19:44	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30200041

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WO#:30200041

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AZJ0582 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 11/21/2016

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis Radium 226, 228, Total	LAB USE ONLY
1	GWC-9	G	10/19/2016 9:44	AZJ0582-01	GW	1	X	001
2	GWC-18	G	10/19/2016 11:08	AZJ0582-02	GW	1	X	002
3	GWC-20	G	10/19/2016 12:25	AZJ0582-03	GW	2	X	003
4	GWC-21	G	10/19/2016 13:45	AZJ0582-04	GW	1	X	004
5	GWC-22	G	10/19/2016 11:23	AZJ0582-05	GW	1	X	009
6	GWC-23	G	10/19/2016 12:27	AZJ0582-06	GW	1	X	005
7	FB-2	G	10/19/2016 12:45	AZJ0582-07	W	1	X	006
8	FERB-2	G	10/19/2016 13:15	AZJ0582-08	W	1	X	007
9	Dup-2	G	10/19/2016 0:00	AZJ0582-09	GW	1	X	008
10								

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	Charles Hewitt	10/20/16 1720	Kiara E. Hill	10-21-16 1040	Client bottle label for GWC-9 ID looks like GWC-7; GWC-9 is correct.
2					
3					

Cooler Temperature on Receipt N/A °C	Custody Seal Y or (N)	Received on Ice Y or (N)	Sample Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

3 0200041

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED: Container type P / P / P; Preservation 3 / 7 / 3
- Metals Part 257 App. III & IV (EPA 6020/7470)
- Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)
- Radium 226 & 228 (SW-846 9315/9320)

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
10/19/16	09:44	GW		x	GWC-9	3	1	1	1	1	Rad labeled GWC-7 001
10/19/16	11:08	GW		x	GWC-18	3	1	1	1	2	CH 10/20/16 002
10/19/16	12:26	GW		x	GWC-20	4	1	1	2	3	Extra Radium volume collected for Lab QA/QC 003
10/19/16	13:45	GW		x	GWC-21	3	1	1	1	4	004
10/19/16	11:23	GW		x	GWC-22	3	1	1	1	5	005
10/19/16	12:27	GW		x	GWC-23	3	1	1	1	6	006
10/19/16	12:45	W		x	FB-2	3	1	1	1	7	007
10/19/16	13:15	W		x	PERB-2	3	1	1	1	8	007
10/19/16	--	GW		x	DUP-2	3	1	1	1	9	008

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: M. Rogers MR, T. Wardell TW, W. Virgo WV — DATE/TIME: 10/19/16 1345

RELINQUISHED BY: Will Virgo (ERM) — DATE/TIME: 10/20/16 0800

RECEIVED BY: — DATE/TIME:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: [signature] — DATE/TIME: 10/20/16 1140

pH checked: Yes No NA — Ice: Yes No NA — Temp: 1°C

SAMPLE SHIPPED VIA: UPS FEDEX USPS Client Pace COURIER OTHER

Number of coolers: 4

FOR LAB USE ONLY — LAB #: AZJ0582 — Entered into LIMS: CH — Tracking #:

2016 10 19 Huffaker COC.xlsx

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

30200041

Client Name: Pace Atlanta Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 6812 5099 9526

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 10-22-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:		✓		4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:		✓		
Containers Intact:	✓			11.
Filtered volume received for Dissolved tests			✓	12.
All containers needing preservation have been checked.	✓			13. pH < 2
All containers needing preservation are found to be in compliance with EPA recommendation.	✓			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: KH Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	14.
Trip Blank Present:			✓	15.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr		✓		Initial when completed: KH Date: 10-22-16

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	11/15/2016
Worklist:	32420
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1178677
MB concentration:	0.423
M/B Counting Uncertainty:	0.427
MB MDC:	0.862
MB Numerical Performance Indicator:	1.94
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32420	LCSD32420
Count Date:	11/19/2016	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	26.037	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.814	
Target Conc. (pCi/L, g, F):	6.395	
Uncertainty (Calculated):	0.460	
Result (pCi/L, g, F):	7.486	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.706	
Numerical Performance Indicator:	2.53	
Percent Recovery:	117.05%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30200041003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30200041003DUP	
Sample Result (pCi/L, g, F):	0.010	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.382	
Sample Duplicate Result (pCi/L, g, F):	0.745	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.430	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-2.505	30200041003
Duplicate RPD:	194.90%	30200041003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	JC2
Date:	11/3/2016
Worklist:	32222
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1173703
MB concentration:	0.031
M/B Counting Uncertainty:	0.050
MB MDC:	0.101
MB Numerical Performance Indicator:	1.20
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32222	LCSD32222
Count Date:	11/5/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.675	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.501	
Target Conc. (pCi/L, g, F):	8.914	
Uncertainty (Calculated):	0.419	
Result (pCi/L, g, F):	8.283	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.789	
Numerical Performance Indicator:	-1.38	
Percent Recovery:	92.92%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30200041003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30200041003DUP	
Sample Result (pCi/L, g, F):	0.058	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.063	
Sample Duplicate Result (pCi/L, g, F):	0.490	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.258	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-3.182	30200041003
Duplicate RPD:	157.41%	30200041003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-226
Analyst:	JC2
Date:	11/3/2016
Worklist:	32221
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1173698
MB concentration:	-0.014
M/B Counting Uncertainty:	0.091
MB MDC:	0.293
MB Numerical Performance Indicator:	-0.30
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS32221	LCSD32221
Count Date:	11/4/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.675	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.502	
Target Conc. (pCi/L, g, F):	8.897	
Uncertainty (Calculated):	0.419	
Result (pCi/L, g, F):	8.029	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.830	
Numerical Performance Indicator:	-1.83	
Percent Recovery:	90.24%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment

Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment

Sample I.D.:	30199878004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30199878004DUP	
Sample Result (pCi/L, g, F):	0.172	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.182	
Sample Duplicate Result (pCi/L, g, F):	0.078	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.133	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	0.820	30199878004
Duplicate RPD:	75.48%	30199878004DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

11/22/16

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZL0281
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

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWA-1	AZL0281-01	Water	12/06/16 10:06	12/07/16 12:00
GWA-3	AZL0281-02	Water	12/06/16 11:38	12/07/16 12:00
GWA-4	AZL0281-03	Water	12/06/16 13:13	12/07/16 12:00
FB-1	AZL0281-04	Water	12/06/16 13:00	12/07/16 12:00
FERB-1	AZL0281-05	Water	12/06/16 13:10	12/07/16 12:00
GWA-11	AZL0281-06	Water	12/06/16 14:17	12/07/16 12:00
GWC-10	AZL0281-07	Water	12/06/16 15:30	12/07/16 12:00
Dup-1	AZL0281-08	Water	12/06/16 00:00	12/07/16 12:00

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281
Client ID: GWA-1
Date/Time Sampled: 12/6/2016 10:06:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0281-01
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	151	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	1.0	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 12:13	6120316	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/12/16 12:13	6120316	RLC
Sulfate	4.7	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/12/16 12:13	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Barium	0.0408	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Boron	0.0182	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Calcium	16.9	2.50	0.155	mg/L	EPA 6020B		5	12/10/16 15:10	12/14/16 14:00	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Lithium	0.0108	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:02	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:38	6120352	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281
Client ID: GWA-3
Date/Time Sampled: 12/6/2016 11:38:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0281-02
Date/Time Received: 12/7/2016 12:00:00PM

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	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 08:46	6120316	RLC
Fluoride	0.19	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 08:46	6120316	RLC
Sulfate	220	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 07:39	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Barium	0.149	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Boron	0.142	0.0400	0.0064	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Calcium	78.6	5.00	0.311	mg/L	EPA 6020B		10	12/10/16 15:10	12/14/16 14:07	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Cobalt	0.0007	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Lithium	0.0214	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:09	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:41	6120352	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281
Client ID: GWA-4
Date/Time Sampled: 12/6/2016 1:13:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0281-03
Date/Time Received: 12/7/2016 12:00:00PM

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	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	7.6	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 09:07	6120316	RLC
Fluoride	0.29	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 09:07	6120316	RLC
Sulfate	210	10	0.51	mg/L	EPA 300.0		10	12/12/16 09:29	12/14/16 08:01	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Barium	0.0528	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Boron	0.106	0.0400	0.0064	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Calcium	93.3	5.00	0.311	mg/L	EPA 6020B		10	12/10/16 15:10	12/14/16 14:13	6120281	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Cobalt	0.0026	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Lithium	0.0195	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:17	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:43	6120352	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281
Client ID: FB-1
Date/Time Sampled: 12/6/2016 1:00:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0281-04
Date/Time Received: 12/7/2016 12:00:00PM

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	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	0.18	0.25	0.01	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 09:29	6120316	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 09:29	6120316	RLC
Sulfate	0.26	1.0	0.05	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 09:29	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Chromium	0.0031	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Lead	0.0004	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:24	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:45	6120352	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281
Client ID: FERB-1
Date/Time Sampled: 12/6/2016 1:10:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0281-05
Date/Time Received: 12/7/2016 12:00:00PM

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	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 16:53	6120316	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 16:53	6120316	RLC
Sulfate	0.07	1.0	0.05	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 16:53	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Chromium	0.0042	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:31	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:48	6120352	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281
Client ID: GWA-11
Date/Time Sampled: 12/6/2016 2:17:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0281-06
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	153	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	1.2	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 11:56	6120316	RLC
Fluoride	0.13	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 11:56	6120316	RLC
Sulfate	12	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 11:56	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Barium	0.0311	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Boron	0.0330	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Calcium	19.7	2.50	0.155	mg/L	EPA 6020B		5	12/10/16 15:10	12/14/16 14:19	6120281	CSW
Chromium	0.0018	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Cobalt	0.0011	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Lithium	0.0114	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:39	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:50	6120352	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281
Client ID: GWC-10
Date/Time Sampled: 12/6/2016 3:30:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0281-07
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	194	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	1.3	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 14:45	6120316	RLC
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 14:45	6120316	RLC
Sulfate	11	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 14:45	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Barium	0.100	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Boron	0.0287	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Calcium	34.3	2.50	0.155	mg/L	EPA 6020B		5	12/10/16 15:10	12/14/16 14:25	6120281	CSW
Chromium	0.0013	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Lithium	0.0097	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:46	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:52	6120352	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281
Client ID: Dup-1
Date/Time Sampled: 12/6/2016 12:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0281-08
Date/Time Received: 12/7/2016 12:00:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	198	25	10	mg/L	SM 2540 C		1	12/10/16 17:30	12/10/16 17:30	6120286	JPT
Inorganic Anions											
Chloride	0.99	0.25	0.01	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 15:07	6120316	RLC
Fluoride	0.16	0.30	0.02	mg/L	EPA 300.0	J	1	12/12/16 09:29	12/13/16 15:07	6120316	RLC
Sulfate	11	1.0	0.05	mg/L	EPA 300.0		1	12/12/16 09:29	12/13/16 15:07	6120316	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Barium	0.103	0.0100	0.0004	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Boron	0.0300	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Calcium	35.8	2.50	0.155	mg/L	EPA 6020B		5	12/10/16 15:10	12/14/16 14:32	6120281	CSW
Chromium	0.0017	0.0100	0.0009	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Lithium	0.0104	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/10/16 15:10	12/12/16 15:54	6120281	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/13/16 09:50	12/13/16 13:55	6120352	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120286 - SM 2540 C											
Blank (6120286-BLK1)						Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120286-BS1)						Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	392	25	10	mg/L	400.00		98	84-108			
Duplicate (6120286-DUP1)		**Source: AZL0281-03**				Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	605	25	10	mg/L		597			1	10	
Duplicate (6120286-DUP2)		**Source: AZL0281-04**				Prepared & Analyzed: 12/10/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281

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)						Prepared & Analyzed: 12/12/16					
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)						Prepared & Analyzed: 12/12/16					
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)		**Source: AZL0281-01**				Prepared & Analyzed: 12/12/16					
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)		**Source: AZL0282-01**				Prepared: 12/12/16 Analyzed: 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)		**Source: AZL0281-01**				Prepared & Analyzed: 12/12/16					
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	

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Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120281 - EPA 3005A											
Blank (6120281-BLK1)						Prepared: 12/10/16 Analyzed: 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							
LCS (6120281-BS1)						Prepared: 12/10/16 Analyzed: 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			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120281 - EPA 3005A											
Matrix Spike (6120281-MS1)		**Source: AZL0230-01**			Prepared: 12/10/16 Analyzed: 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)		**Source: AZL0230-01**			Prepared: 12/10/16 Analyzed: 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	7	20	
Nickel	0.100	0.0100	0.0006	mg/L	0.10000	0.0032	97	75-125	2	20	
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125	1	20	
Silver	0.105	0.0100	0.0005	mg/L	0.10000	ND	105	75-125	6	20	
Thallium	0.0992	0.0010	0.0002	mg/L	0.10000	ND	99	75-125	4	20	
Vanadium	0.101	0.0100	0.0071	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	

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120281 - EPA 3005A											
Post Spike (6120281-PS1)			**Source: AZL0230-01**			Prepared: 12/10/16 Analyzed: 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 6120352 - EPA 7470A											
Blank (6120352-BLK1)						Prepared & Analyzed: 12/13/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6120352-BS1)						Prepared & Analyzed: 12/13/16					
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			

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Attention: Mr. Joju Abraham

December 19, 2016

Report No.: AZL0281

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120352 - EPA 7470A											
Matrix Spike (6120352-MS1)		**Source: AZL0281-07**				Prepared & Analyzed: 12/13/16					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6120352-MSD1)		**Source: AZL0281-07**				Prepared & Analyzed: 12/13/16					
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	4	20	
Post Spike (6120352-PS1)		**Source: AZL0281-07**				Prepared & Analyzed: 12/13/16					
Mercury	1.67			ug/L	1.6667	0.0177	99	80-120			

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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.

ID: AP 1&2 2016 1206-01 AP 1&2 2016 1206-03
AP 1&2 2016 1206-02

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham
CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO4, & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
					CONTAINER TYPE:		P	P	P		
					PRESERVATION:		3	7	3		
12/06/16	10:06	W		X	GWA-1	4	1	1	2	1	
12/06/16	11:38	W		X	GWA-3	3	1	1	1	2	
12/06/16	13:13	W		X	GWA-4	3	1	1	1	3	
12/06/16	13:00	W		X	FB-1	3	1	1	1	4	
12/06/16	13:10	W		X	FERB-1	3	1	1	1	5	
12/06/16	14:17	W		X	GWA-11	3	1	-1	1	6	
12/06/16	15:30	W		X	GWC-10	3	1	1	1	7	
12/06/16	–	W		X	DUP-1	3	1	1	1	8	

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

SAMPLED BY AND TITLE: W.Virgo WFV / T.Wardell TW — DATE/TIME: 12/6/16 2230

RELINQUISHED BY: W.Virgo (ERM) — DATE/TIME:

RECEIVED BY:

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: — DATE/TIME: 12/07/16 1200

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (Pace) CLIENT OTHER FS

Custody Seal: Intact / Broken / Not Present — # of Coolers: — Cooler ID:

Iced: No NA — Ice: (Yes) No NA — Temperature: 1°C Min: 1°C Max:

FOR LAB USE ONLY
LAB #: AZLO281
Entered into LIMS: NB
Tracking #:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 12/8/2016 10:09:16AM

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 12/07/16 12:00

Work Order: AZL0281
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 8 **#Containers:** 25

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

January 11, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 30204836

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
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30204836

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 30204836

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30204836001	**GWA-1**	Water	12/06/16 10:06	12/08/16 10:20
30204836002	**GWA-3**	Water	12/06/16 11:38	12/08/16 10:20
30204836003	**GWA-4**	Water	12/06/16 13:13	12/08/16 10:20
30204836004	**FB-1**	Water	12/06/16 13:00	12/08/16 10:20
30204836005	**FERB-1**	Water	12/06/16 13:10	12/08/16 10:20
30204836006	**GWA-11**	Water	12/06/16 14:17	12/08/16 10:20
30204836007	**GWC-10**	Water	12/06/16 15:30	12/08/16 10:20
30204836008	**Dup-1**	Water	12/06/16 00:00	12/08/16 10:20

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30204836

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30204836001	**GWA-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204836002	**GWA-3**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204836003	**GWA-4**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204836004	**FB-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204836005	**FERB-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204836006	**GWA-11**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204836007	**GWC-10**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30204836008	**Dup-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30204836

Sample: GWA-1 **Lab ID: 30204836001** Collected: 12/06/16 10:06 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
Radium-226	EPA 9315	**0.117 ± 0.115 (0.210) C:91% T:NA**	pCi/L	12/19/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.200 ± 0.287 (0.616) C:73% T:89%**	pCi/L	01/08/17 17:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.317 ± 0.402 (0.826)**	pCi/L	01/11/17 16:38	7440-14-4	

Sample: GWA-3 **Lab ID: 30204836002** Collected: 12/06/16 11:38 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
Radium-226	EPA 9315	**0.261 ± 0.157 (0.215) C:87% T:NA**	pCi/L	12/19/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.270 ± 0.259 (0.519) C:76% T:83%**	pCi/L	01/08/17 17:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.531 ± 0.416 (0.734)**	pCi/L	01/11/17 16:38	7440-14-4	

Sample: GWA-4 **Lab ID: 30204836003** Collected: 12/06/16 13:13 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
Radium-226	EPA 9315	**0.0913 ± 0.101 (0.189) C:89% T:NA**	pCi/L	12/19/16 10:13	13982-63-3	
Radium-228	EPA 9320	**0.525 ± 0.337 (0.621) C:76% T:80%**	pCi/L	01/08/17 17:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.616 ± 0.478 (0.810)**	pCi/L	01/11/17 16:38	7440-14-4	

Sample: FB-1 **Lab ID: 30204836004** Collected: 12/06/16 13:00 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
Radium-226	EPA 9315	**0.217 ± 0.133 (0.173) C:84% T:NA**	pCi/L	12/20/16 08:36	13982-63-3	
Radium-228	EPA 9320	**0.242 ± 0.317 (0.674) C:82% T:78%**	pCi/L	01/08/17 17:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.459 ± 0.450 (0.847)**	pCi/L	01/11/17 16:38	7440-14-4	

Sample: FERB-1 **Lab ID: 30204836005** Collected: 12/06/16 13:10 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
Radium-226	EPA 9315	**0.0220 ± 0.0762 (0.194) C:88% T:NA**	pCi/L	12/20/16 08:36	13982-63-3	
Radium-228	EPA 9320	**0.296 ± 0.364 (0.771) C:76% T:80%**	pCi/L	01/08/17 17:03	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30204836

Sample: FERB-1 **Lab ID: 30204836005** Collected: 12/06/16 13:10 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 Calculation	**0.318 ± 0.440 (0.965)**	pCi/L	01/11/17 16:38	7440-14-4	

Sample: GWA-11 **Lab ID: 30204836006** Collected: 12/06/16 14:17 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
Radium-226	EPA 9315	**0.135 ± 0.118 (0.205) C:81% T:NA**	pCi/L	12/20/16 08:36	13982-63-3	
Radium-228	EPA 9320	**0.384 ± 0.322 (0.641) C:77% T:86%**	pCi/L	01/08/17 17:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.519 ± 0.440 (0.846)**	pCi/L	01/11/17 16:38	7440-14-4	

Sample: GWC-10 **Lab ID: 30204836007** Collected: 12/06/16 15:30 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
Radium-226	EPA 9315	**0.111 ± 0.116 (0.225) C:84% T:NA**	pCi/L	12/20/16 08:36	13982-63-3	
Radium-228	EPA 9320	**0.571 ± 0.349 (0.638) C:75% T:83%**	pCi/L	01/08/17 17:03	15262-20-1	
Total Radium	Total Radium Calculation	**0.681 ± 0.465 (0.863)**	pCi/L	01/11/17 16:38	7440-14-4	

Sample: Dup-1 **Lab ID: 30204836008** Collected: 12/06/16 00:00 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
Radium-226	EPA 9315	**0.174 ± 0.115 (0.157) C:94% T:NA**	pCi/L	12/20/16 08:36	13982-63-3	
Radium-228	EPA 9320	**0.218 ± 0.324 (0.699) C:83% T:80%**	pCi/L	01/08/17 17:04	15262-20-1	
Total Radium	Total Radium Calculation	**0.392 ± 0.439 (0.856)**	pCi/L	01/11/17 16:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30204836

QC Batch: 243001 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30204836001, 30204836002, 30204836003, 30204836004, 30204836005, 30204836006, 30204836007, 30204836008

METHOD BLANK: 1195275 Matrix: Water
Associated Lab Samples: 30204836001, 30204836002, 30204836003, 30204836004, 30204836005, 30204836006, 30204836007, 30204836008

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30204836

QC Batch: 243003 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30204836001, 30204836002, 30204836003, 30204836004, 30204836005, 30204836006, 30204836007, 30204836008

METHOD BLANK: 1195281 Matrix: Water
Associated Lab Samples: 30204836001, 30204836002, 30204836003, 30204836004, 30204836005, 30204836006, 30204836007, 30204836008

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30204836

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AZL0281 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 1/6/2017

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

WO#:30204836

30204836

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWA-1	G	12/6/2016 10:06	AZL0281-01	GW	2	X	001
2	GWA-3	G	12/6/2016 11:38	AZL0281-02	GW	1	X	002
3	GWA-4	G	12/6/2016 13:13	AZL0281-03	GW	1	X	003
4	FB-1	G	12/6/2016 13:00	AZL0281-04	W	1	X	004
5	FERB-1	G	12/6/2016 13:10	AZL0281-05	W	1	X	005
6	GWA-11	G	12/6/2016 14:17	AZL0281-06	GW	1	X	006
7	GWC-10 12/6 15:30	G	~~15:3010:06:00 AM~~	AZL0281-07	GW	1	X	007
8	Dup-1 BMD 12/7/2016	G	12/6/2016 0:00	AZL0281-08	GW	1	X	008
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Kiara Hill	12-8-16 1020	
2					
3					

Cooler Temperature on Receipt N/A °C	Custody Seal Y or (N)	Received on Ice Y or (N)	Sample Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

ID: AP 1&2 2016 1206-01 AP 1&2 2016 1206-03
AP 1&2 2016 1206-02 30204836

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham
CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER
					CONTAINER TYPE:		P	P	P	
					PRESERVATION:		3	7	3	
12/06/16	10:06	W		X	GWA-1	4	1	1	2	1
12/06/16	11:38	W		X	GWA-3	3	1	1	1	2
12/06/16	13:13	W		X	GWA-4	3	1	1	1	3
12/06/16	13:00	W		X	FB-1	3	1	1	1	4
12/06/16	13:10	W		X	FERB-1	3	1	1	1	5
12/06/16	14:17	W		X	GWA-11	3	1	-1	1	6
12/06/16	15:30	W		X	GWC-10	3	1	1	1	7
12/06/16	–	W		X	DUP-1	3	1	1	1	8

CONTAINER TYPE: P - PLASTIC; A - AMBER GLASS; G - CLEAR GLASS; V - VOA VIAL; S - STERILE; O - OTHER

PRESERVATION: 1 - HCl, ≤6°C; 2 - H_2SO_4, ≤6°C; 3 - HNO_3; 4 - NaOH, ≤6°C; 5 - NaOH/ZnAc, ≤6°C; 6 - $Na_2S_2O_3$, ≤6°C; 7 - ≤6°C not frozen

*MATRIX CODES: DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER; S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: W.Virgo WFV
T.Wardell TW
DATE/TIME: 12/6/16 2230

RELINQUISHED BY: W.Virgo (ERM)
DATE/TIME:

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: TRahman
DATE/TIME: 12/07/16 1200

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

Custody Seal: Intact Broken Not Present
# of Coolers:
Cooler ID:

pH Checked: Yes No NA
Temperature: 1°C Min: 1°C Max:

FOR LAB USE ONLY
LAB #: AZ10281
Entered into LIMS: MR
Tracking #:

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

30204836

Client Name: Pace, AT Project #

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 6812 5100 9450

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp — °C Correction Factor: — °C Final Temp: — °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: DMR 12-8-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain-of-Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. pH<2
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: DMR Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: XH Date: 12-8-16

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

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Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	LAL
Date:	12/16/2016
Worklist:	32910
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1195275
MB concentration:	0.058
M/B Counting Uncertainty:	0.092
MB MDC:	0.202
MB Numerical Performance Indicator:	1.24
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS32910	LCSD32910
Count Date:	12/20/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.672	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.502	
Target Conc. (pCi/L, g, F):	8.904	
Uncertainty (Calculated):	0.419	
Result (pCi/L, g, F):	6.764	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.610	
Numerical Performance Indicator:	-5.67	
Percent Recovery:	75.97%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30204838001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30204838001DUP	
Sample Result (pCi/L, g, F):	0.301	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.155	
Sample Duplicate Result (pCi/L, g, F):	0.462	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.192	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.279	30204838001
Duplicate RPD:	42.22%	30204838001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

6/14/17

Quality Control Sample Performance Assessment

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Test:	Ra-228
Analyst:	JLW
Date:	12/28/2016
Worklist:	32912
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1195281
MB concentration:	0.462
M/B Counting Uncertainty:	0.340
MB MDC:	0.678
MB Numerical Performance Indicator:	2.66
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)? LCS32912	N LCSD32912
Count Date:	1/8/2017	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.613	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.817	
Target Conc. (pCi/L, g, F):	6.269	
Uncertainty (Calculated):	0.451	
Result (pCi/L, g, F):	8.156	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.806	
Numerical Performance Indicator:	4.00	
Percent Recovery:	130.10%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30204834003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30204834003DUP	
Sample Result (pCi/L, g, F):	0.752	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.372	
Sample Duplicate Result (pCi/L, g, F):	1.526	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.436	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-2.649	30204834003
Duplicate RPD:	67.95%	30204834003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

1/11/17

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZL0387
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

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-19	AZL0387-01	Water	12/07/16 09:38	12/08/16 12:15
GWC-20	AZL0387-02	Water	12/07/16 10:51	12/08/16 12:15
GWC-21	AZL0387-03	Water	12/07/16 15:36	12/08/16 12:15
GWC-22	AZL0387-04	Water	12/07/16 13:46	12/08/16 12:15
GWC-23	AZL0387-05	Water	12/07/16 14:59	12/08/16 12:15
Dup-2	AZL0387-06	Water	12/07/16 00:00	12/08/16 12:15
GWA-2	AZL0387-07	Water	12/07/16 16:10	12/08/16 12:15

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387
Client ID: GWC-19
Date/Time Sampled: 12/7/2016 9:38:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0387-01
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	220	25	10	mg/L	SM 2540 C		1	12/13/16 08:56	12/13/16 08:56	6120342	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 13:05	6120686	RLC
Fluoride	0.24	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 13:05	6120686	RLC
Sulfate	13	1.0	0.05	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 13:05	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Barium	0.133	0.0100	0.0004	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Boron	0.203	0.0400	0.0064	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Calcium	40.6	5.00	0.311	mg/L	EPA 6020B		10	12/14/16 15:30	12/21/16 14:18	6120326	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Lithium	0.0190	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/14/16 15:30	12/15/16 15:47	6120326	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 10:55	12/14/16 14:29	6120386	MTC

PACE ANALYTICAL SERVICES, LLC.

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387
Client ID: GWC-20
Date/Time Sampled: 12/7/2016 10:51:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0387-02
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	186	25	10	mg/L	SM 2540 C		1	12/13/16 08:56	12/13/16 08:56	6120342	JPT
Inorganic Anions											
Chloride	1.8	0.25	0.01	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 14:11	6120686	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 14:11	6120686	RLC
Sulfate	26	1.0	0.05	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 14:11	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Barium	0.110	0.0100	0.0004	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Boron	0.0248	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Calcium	46.4	5.00	0.311	mg/L	EPA 6020B		10	12/14/16 15:30	12/21/16 14:24	6120326	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Lithium	0.0107	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/14/16 15:30	12/15/16 15:54	6120326	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 10:55	12/14/16 14:38	6120386	MTC

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387
Client ID: GWC-21
Date/Time Sampled: 12/7/2016 3:36:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0387-03
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	252	25	10	mg/L	SM 2540 C		1	12/13/16 08:56	12/13/16 08:56	6120342	JPT
Inorganic Anions											
Chloride	2.2	0.25	0.01	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 14:33	6120686	RLC
Fluoride	0.23	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 14:33	6120686	RLC
Sulfate	19	1.0	0.05	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 14:33	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Barium	0.174	0.0100	0.0004	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Boron	0.127	0.0400	0.0064	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Calcium	54.7	25.0	1.55	mg/L	EPA 6020B		50	12/14/16 15:30	12/21/16 14:47	6120326	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Cobalt	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Molybdenum	0.0085	0.0100	0.0017	mg/L	EPA 6020B	J	1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Lithium	0.0046	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/14/16 15:30	12/15/16 16:00	6120326	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 10:55	12/14/16 14:40	6120386	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387
Client ID: GWC-22
Date/Time Sampled: 12/7/2016 1:46:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0387-04
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	199	25	10	mg/L	SM 2540 C		1	12/13/16 08:56	12/13/16 08:56	6120342	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 14:54	6120686	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 14:54	6120686	RLC
Sulfate	11	1.0	0.05	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 14:54	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Barium	0.0868	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Boron	0.0758	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Calcium	45.3	25.0	1.55	mg/L	EPA 6020B		50	12/13/16 07:55	12/21/16 15:35	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Lithium	0.0153	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:01	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 10:55	12/14/16 14:43	6120386	MTC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387
Client ID: GWC-23
Date/Time Sampled: 12/7/2016 2:59:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0387-05
Date/Time Received: 12/8/2016 12:15:00PM

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	12/13/16 08:56	12/13/16 08:56	6120342	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 15:16	6120686	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 15:16	6120686	RLC
Sulfate	5.9	1.0	0.05	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 15:16	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Barium	0.0732	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Boron	0.0215	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Calcium	35.5	5.00	0.311	mg/L	EPA 6020B		10	12/13/16 07:55	12/21/16 15:40	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Lithium	0.0187	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:08	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 10:55	12/14/16 14:45	6120386	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387
Client ID: Dup-2
Date/Time Sampled: 12/7/2016 12:00:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0387-06
Date/Time Received: 12/8/2016 12:15:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	211	25	10	mg/L	SM 2540 C		1	12/13/16 08:56	12/13/16 08:56	6120342	JPT
Inorganic Anions											
Chloride	1.8	0.25	0.01	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 15:38	6120686	RLC
Fluoride	0.10	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 15:38	6120686	RLC
Sulfate	27	1.0	0.05	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 15:38	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Barium	0.115	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Boron	0.0207	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Calcium	48.7	25.0	1.55	mg/L	EPA 6020B		50	12/13/16 07:55	12/21/16 15:46	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Lithium	0.0112	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:16	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 10:55	12/14/16 14:47	6120386	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387
Client ID: GWA-2
Date/Time Sampled: 12/7/2016 4:10:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0387-07
Date/Time Received: 12/8/2016 12:15:00PM

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 08:56	12/13/16 08:56	6120342	JPT
Inorganic Anions											
Chloride	2.6	0.25	0.01	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 16:00	6120686	RLC
Fluoride	0.13	0.30	0.02	mg/L	EPA 300.0	J	1	12/18/16 10:09	12/20/16 16:00	6120686	RLC
Sulfate	15	1.0	0.05	mg/L	EPA 300.0		1	12/18/16 10:09	12/20/16 16:00	6120686	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Barium	0.167	0.0100	0.0004	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Boron	0.0954	0.0400	0.0064	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Calcium	43.5	25.0	1.55	mg/L	EPA 6020B		50	12/13/16 07:55	12/21/16 15:52	6120327	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Lithium	0.0123	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/13/16 07:55	12/14/16 19:24	6120327	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/14/16 11:40	12/14/16 16:25	6120387	MTC

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Report No.: AZL0387

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120342 - SM 2540 C											
Blank (6120342-BLK1)						Prepared & Analyzed: 12/13/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120342-BS1)						Prepared & Analyzed: 12/13/16					
Total Dissolved Solids	381	25	10	mg/L	400.00		95	84-108			
Duplicate (6120342-DUP1)		**Source: AZL0383-08**				Prepared & Analyzed: 12/13/16					
Total Dissolved Solids	557	25	10	mg/L		565			1	10	
Duplicate (6120342-DUP2)		**Source: AZL0383-11**				Prepared & Analyzed: 12/13/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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Report No.: AZL0387

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)						Prepared: 12/18/16 Analyzed: 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)						Prepared: 12/18/16 Analyzed: 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)			**Source: AZL0387-01RE1**			Prepared: 12/18/16 Analyzed: 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)			**Source: AZL0390-02RE2**			Prepared: 12/18/16 Analyzed: 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)			**Source: AZL0387-01RE1**			Prepared: 12/18/16 Analyzed: 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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Report No.: AZL0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120326 - EPA 3005A											
Blank (6120326-BLK1)						Prepared: 12/14/16 Analyzed: 12/15/16					
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 (6120326-BS1)						Prepared: 12/14/16 Analyzed: 12/15/16					
Antimony	0.101	0.0030	0.0008	mg/L	0.10000		101	80-120			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000		100	80-120			
Barium	0.0974	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.108	0.0030	0.00008	mg/L	0.10000		108	80-120			
Boron	1.06	0.0400	0.0064	mg/L	1.0000		106	80-120			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000		101	80-120			
Calcium	0.972	0.500	0.0311	mg/L	1.0000		97	80-120			
Chromium	0.101	0.0100	0.0009	mg/L	0.10000		101	80-120			
Cobalt	0.0998	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	0.0990	0.0050	0.0001	mg/L	0.10000		99	80-120			
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000		102	80-120			
Nickel	0.101	0.0100	0.0006	mg/L	0.10000		101	80-120			
Selenium	0.0980	0.0100	0.0010	mg/L	0.10000		98	80-120			
Silver	0.0985	0.0100	0.0005	mg/L	0.10000		98	80-120			
Thallium	0.0982	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	0.101	0.0100	0.0021	mg/L	0.10000		101	80-120			
Lithium	0.104	0.0500	0.0021	mg/L	0.10000		104	80-120			

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December 23, 2016

Report No.: AZL0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120326 - EPA 3005A											
Matrix Spike (6120326-MS1)		**Source: AZL0316-02**			Prepared: 12/14/16 Analyzed: 12/15/16						
Antimony	0.101	0.0030	0.0008	mg/L	0.10000	0.0008	100	75-125			
Arsenic	0.0976	0.0050	0.0016	mg/L	0.10000	ND	98	75-125			
Barium	0.109	0.0100	0.0004	mg/L	0.10000	0.0127	96	75-125			
Beryllium	0.105	0.0030	0.00008	mg/L	0.10000	ND	105	75-125			
Boron	1.48	0.0400	0.0064	mg/L	1.0000	0.436	105	75-125			
Cadmium	0.0992	0.0010	0.00007	mg/L	0.10000	ND	99	75-125			
Calcium	107	50.0	3.11	mg/L	1.0000	105	276	75-125			QM-02
Chromium	0.0954	0.0100	0.0009	mg/L	0.10000	ND	95	75-125			
Cobalt	0.0957	0.0100	0.0005	mg/L	0.10000	ND	96	75-125			
Copper	0.0942	0.0250	0.0005	mg/L	0.10000	ND	94	75-125			
Lead	0.0979	0.0050	0.0001	mg/L	0.10000	ND	98	75-125			
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000	ND	102	75-125			
Nickel	0.100	0.0100	0.0006	mg/L	0.10000	0.0042	96	75-125			
Selenium	0.0986	0.0100	0.0010	mg/L	0.10000	ND	99	75-125			
Silver	0.0958	0.0100	0.0005	mg/L	0.10000	ND	96	75-125			
Thallium	0.0983	0.0010	0.0002	mg/L	0.10000	0.0002	98	75-125			
Vanadium	0.102	0.0100	0.0071	mg/L	0.10000	ND	102	75-125			
Zinc	0.0978	0.0100	0.0021	mg/L	0.10000	ND	98	75-125			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0022	101	75-125			
Matrix Spike Dup (6120326-MSD1)		**Source: AZL0316-02**			Prepared: 12/14/16 Analyzed: 12/15/16						
Antimony	0.105	0.0030	0.0008	mg/L	0.10000	0.0008	104	75-125	4	20	
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000	ND	100	75-125	2	20	
Barium	0.110	0.0100	0.0004	mg/L	0.10000	0.0127	97	75-125	1	20	
Beryllium	0.109	0.0030	0.00008	mg/L	0.10000	ND	109	75-125	4	20	
Boron	1.52	0.0400	0.0064	mg/L	1.0000	0.436	108	75-125	2	20	
Cadmium	0.104	0.0010	0.00007	mg/L	0.10000	ND	104	75-125	5	20	
Calcium	108	50.0	3.11	mg/L	1.0000	105	301	75-125	0.2	20	QM-02
Chromium	0.0968	0.0100	0.0009	mg/L	0.10000	ND	97	75-125	1	20	
Cobalt	0.0993	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	4	20	
Copper	0.0960	0.0250	0.0005	mg/L	0.10000	ND	96	75-125	2	20	
Lead	0.100	0.0050	0.0001	mg/L	0.10000	ND	100	75-125	2	20	
Molybdenum	0.107	0.0100	0.0017	mg/L	0.10000	ND	107	75-125	4	20	
Nickel	0.102	0.0100	0.0006	mg/L	0.10000	0.0042	98	75-125	2	20	
Selenium	0.0975	0.0100	0.0010	mg/L	0.10000	ND	98	75-125	1	20	
Silver	0.0986	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	3	20	
Thallium	0.0988	0.0010	0.0002	mg/L	0.10000	0.0002	99	75-125	0.5	20	
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125	0.5	20	
Zinc	0.101	0.0100	0.0021	mg/L	0.10000	ND	101	75-125	3	20	
Lithium	0.108	0.0500	0.0021	mg/L	0.10000	0.0022	106	75-125	5	20	

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December 23, 2016

Report No.: AZL0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120326 - EPA 3005A											
Post Spike (6120326-PS1)			**Source: AZL0316-02**			Prepared: 12/14/16 Analyzed: 12/15/16					
Antimony	97.3			ug/L	100.00	0.850	96	80-120			
Arsenic	98.2			ug/L	100.00	-0.560	98	80-120			
Barium	109			ug/L	100.00	12.7	96	80-120			
Beryllium	107			ug/L	100.00	0.0200	107	80-120			
Boron	1490			ug/L	1000.0	436	105	80-120			
Cadmium	101			ug/L	100.00	0.00	101	80-120			
Calcium	103000			ug/L	1000.0	105000	NR	80-120			QM-02
Chromium	97.1			ug/L	100.00	-3.67	97	80-120			
Cobalt	97.0			ug/L	100.00	0.400	97	80-120			
Copper	95.8			ug/L	100.00	0.520	95	80-120			
Lead	96.9			ug/L	100.00	0.0200	97	80-120			
Molybdenum	102			ug/L	100.00	0.140	102	80-120			
Nickel	101			ug/L	100.00	4.18	97	80-120			
Selenium	97.8			ug/L	100.00	-0.170	98	80-120			
Silver	96.6			ug/L	100.00	0.00	97	80-120			
Thallium	96.4			ug/L	100.00	0.220	96	80-120			
Vanadium	103			ug/L	100.00	3.25	99	80-120			
Zinc	100			ug/L	100.00	1.15	99	80-120			
Lithium	108			ug/L	100.00	2.21	105	80-120			
Batch 6120327 - EPA 3005A											
Blank (6120327-BLK1)						Prepared: 12/13/16 Analyzed: 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							

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120327 - EPA 3005A											
Blank (6120327-BLK1)					Prepared: 12/13/16 Analyzed: 12/14/16						
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6120327-BS1)					Prepared: 12/13/16 Analyzed: 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			
Matrix Spike (6120327-MS1)		**Source: AZL0387-04**			Prepared: 12/13/16 Analyzed: 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			

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120327 - EPA 3005A											
Matrix Spike (6120327-MS1)		**Source: AZL0387-04**			Prepared: 12/13/16 Analyzed: 12/14/16						
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)		**Source: AZL0387-04**			Prepared: 12/13/16 Analyzed: 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	2	20	
Thallium	0.0950	0.0010	0.0002	mg/L	0.10000	ND	95	75-125	5	20	
Vanadium	0.0973	0.0100	0.0071	mg/L	0.10000	ND	97	75-125	0.3	20	
Zinc	0.0942	0.0100	0.0021	mg/L	0.10000	ND	94	75-125	3	20	
Lithium	0.112	0.0500	0.0021	mg/L	0.10000	0.0153	97	75-125	1	20	
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			

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120327 - EPA 3005A											
Post Spike (6120327-PS1)			**Source: AZL0387-04**			Prepared: 12/13/16 Analyzed: 12/14/16					
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 6120386 - EPA 7470A											
Blank (6120386-BLK1)						Prepared & Analyzed: 12/14/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6120386-BS1)						Prepared & Analyzed: 12/14/16					
Mercury	0.00252	0.00050	0.000041	mg/L	2.5000E-3		101	80-120			
Matrix Spike (6120386-MS1)			**Source: AZL0316-05**			Prepared & Analyzed: 12/14/16					
Mercury	0.00247	0.00050	0.000041	mg/L	2.5000E-3	ND	99	75-125			
Matrix Spike Dup (6120386-MSD1)			**Source: AZL0316-05**			Prepared & Analyzed: 12/14/16					
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3	ND	98	75-125	0.6	20	
Post Spike (6120386-PS1)			**Source: AZL0316-05**			Prepared & Analyzed: 12/14/16					
Mercury	1.69			ug/L	1.6667	0.00473	101	80-120			
Batch 6120387 - EPA 7470A											
Blank (6120387-BLK1)						Prepared & Analyzed: 12/14/16					
Mercury	ND	0.00050	0.000041	mg/L							

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Attention: Mr. Joju Abraham

December 23, 2016

Report No.: AZL0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120387 - EPA 7470A											
LCS (6120387-BS1)						Prepared & Analyzed: 12/14/16					
Mercury	0.00237	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			
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			

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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

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.

Huff 20161207-01

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)							LAB ID NUMBER
CONTAINER TYPE:								P	P	P							
PRESERVATION:								3	7	3							
12/07/16	9:38	W		X	GWC-19	3		1	1	1							1
12/07/16	10:51	W		X	GWC-20	3		1	1	1							2
12/07/16	15:38	W		X	GWC-21	3		1	1	1							3
12/07/16	13:46	W		X	GWC-22	4		1	1	2							4
12/07/16	14:59	W		X	GWC-23	3		1	1	1							5
12/07/16	–	W		X	DUP-2	3		1	1	1							6
12/07/16	16:10	W		X	GWA-2	3		1	1	1							7

CONTAINER TYPE / PRESERVATION

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: T.Wardell TW

DATE/TIME: 12/7/16 2300

RELINQUISHED BY: Will Vick (ERM)

DATE/TIME:

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

FOR LAB USE ONLY
LAB #: AZL0387
Entered Into LIMS: MR
Tracking #:

RECEIVED BY LAB: Q Rahman

DATE/TIME: 12/08/16 1215

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

Checked: (No) NA

Ice: (Yes) No NA

Temperature: 1.0 / 1.0 Min: 1.0 Max:

Custody Seal: Intact Broken Not Present

# of Coolers:

Cooler ID:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 12/12/2016 10:08:46AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 12/08/16 12:15

Work Order: AZL0387
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 7 **#Containers:** 22

Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

January 23, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 30205168

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
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30205168

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 30205168

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30205168001	**GWC-19**	Water	12/07/16 09:38	12/12/16 09:20
30205168002	**GWC-20**	Water	12/07/16 10:51	12/12/16 09:20
30205168003	**GWC-21**	Water	12/07/16 15:36	12/12/16 09:20
30205168004	**GWC-22**	Water	12/07/16 13:46	12/12/16 09:20
30205168005	**GWC-23**	Water	12/07/16 14:59	12/12/16 09:20
30205168006	**Dup-2**	Water	12/07/16 00:00	12/12/16 09:20
30205168007	**GWA-2**	Water	12/07/16 16:10	12/12/16 09:20

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30205168

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30205168001	**GWC-19**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205168002	**GWC-20**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205168003	**GWC-21**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205168004	**GWC-22**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205168005	**GWC-23**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205168006	**Dup-2**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205168007	**GWA-2**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1

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Greensburg, PA 15601
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205168

Sample: GWC-19 **Lab ID: 30205168001** Collected: 12/07/16 09:38 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	**0.300 ± 0.207 (0.298) C:88% T:NA**	pCi/L	01/17/17 08:09	13982-63-3	
Radium-228	EPA 9320	**0.313 ± 0.316 (0.644) C:69% T:86%**	pCi/L	01/22/17 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.613 ± 0.523 (0.942)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWC-20 **Lab ID: 30205168002** Collected: 12/07/16 10:51 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	**0.222 ± 0.232 (0.463) C:87% T:NA**	pCi/L	01/17/17 08:09	13982-63-3	
Radium-228	EPA 9320	**0.428 ± 0.380 (0.764) C:66% T:88%**	pCi/L	01/22/17 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.650 ± 0.612 (1.23)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWC-21 **Lab ID: 30205168003** Collected: 12/07/16 15:36 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	**0.164 ± 0.169 (0.314) C:94% T:NA**	pCi/L	01/17/17 08:09	13982-63-3	
Radium-228	EPA 9320	**0.646 ± 0.410 (0.771) C:70% T:88%**	pCi/L	01/22/17 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.810 ± 0.579 (1.09)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWC-22 **Lab ID: 30205168004** Collected: 12/07/16 13:46 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	**0.189 ± 0.190 (0.361) C:94% T:NA**	pCi/L	01/17/17 08:09	13982-63-3	
Radium-228	EPA 9320	**0.344 ± 0.361 (0.747) C:69% T:88%**	pCi/L	01/22/17 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.533 ± 0.551 (1.11)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWC-23 **Lab ID: 30205168005** Collected: 12/07/16 14:59 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	**0.215 ± 0.187 (0.319) C:93% T:NA**	pCi/L	01/17/17 08:09	13982-63-3	
Radium-228	EPA 9320	**0.0113 ± 0.257 (0.607) C:70% T:91%**	pCi/L	01/22/17 12:54	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205168

Sample: GWC-23 **Lab ID: 30205168005** Collected: 12/07/16 14:59 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 Calculation	**0.226 ± 0.444 (0.926)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: Dup-2 **Lab ID: 30205168006** Collected: 12/07/16 00:00 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	**0.228 ± 0.222 (0.434) C:94% T:NA**	pCi/L	01/17/17 09:27	13982-63-3	
Radium-228	EPA 9320	**0.788 ± 0.392 (0.668) C:73% T:89%**	pCi/L	01/22/17 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**1.02 ± 0.614 (1.10)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWA-2 **Lab ID: 30205168007** Collected: 12/07/16 16:10 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	**0.233 ± 0.208 (0.379) C:90% T:NA**	pCi/L	01/17/17 09:27	13982-63-3	
Radium-228	EPA 9320	**0.328 ± 0.370 (0.777) C:72% T:88%**	pCi/L	01/22/17 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.561 ± 0.578 (1.16)**	pCi/L	01/23/17 12:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205168

QC Batch: 245740 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30205168001, 30205168002, 30205168003, 30205168004, 30205168005, 30205168006, 30205168007

METHOD BLANK: 1208859 Matrix: Water
Associated Lab Samples: 30205168001, 30205168002, 30205168003, 30205168004, 30205168005, 30205168006, 30205168007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.612 ± 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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205168

QC Batch: 245739 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30205168001, 30205168002, 30205168003, 30205168004, 30205168005, 30205168006, 30205168007

METHOD BLANK: 1208851 Matrix: Water
Associated Lab Samples: 30205168001, 30205168002, 30205168003, 30205168004, 30205168005, 30205168006, 30205168007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0563 ± 0.118 (0.277) C:97% T:NA	pCi/L	01/17/17 08:09	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30205168

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AZL0387 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 1/10/2017

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

WO#:30205168

30205168

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWC-19	G	12/7/2016 9:38	AZL0387-01	GW	1	X	001
2	GWC-20	G	12/7/2016 10:51	AZL0387-02	GW	1	X	002
3	GWC-21	G	12/7/2016 15:36	AZL0387-03	GW	1	X	003
4	GWC-22	G	12/7/2016 13:46	AZL0387-04	GW	2	X	004
5	GWC-23	G	12/7/2016 14:59	AZL0387-05	GW	1	X	005
6	Dup-2	G	12/7/2016 0:00	AZL0387-06	GW	1	X	006
7	GWA-2	G	12/7/2016 16:10	AZL0387-07	GW	1	X	007
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Karen Hill	12-17-16 0920	
2					
3					

Cooler Temperature on Receipt N/A °C	Custody Seal Y or (N)	Received on Ice Y or (N)	Sample Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Huff 20161207-01   30205168

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239
REPORT TO: Joju Abraham
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com
PROJECT NAME/STATE: Plant Hammond - Huffaker
PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)						LAB ID NUMBER
					CONTAINER TYPE:			P	P	P						
					PRESERVATION:			3	7	3						
12/07/16	9:38	W		X	GWC-19	3		1	1	1						1
12/07/16	10:51	W		X	GWC-20	3		1	1	1						2
12/07/16	15:38	W		X	GWC-21	3		1	1	1						3
12/07/16	13:46	W		X	GWC-22	4		1	1	2						4
12/07/16	14:59	W		X	GWC-23	3		1	1	1						5
12/07/16	–	W		X	DUP-2	3		1	1	1						6
12/07/16	16:10	W		X	GWA-2	3		1	1	1						7

CONTAINER TYPE:
P - PLASTIC
A - AMBER GLASS
G - CLEAR GLASS
V - VOA VIAL
S - STERILE
O - OTHER

PRESERVATION:
1 - HCl, ≤6°C
2 - H_2SO_4, ≤6°C
3 - HNO_3
4 - NaOH, ≤6°C
5 - NaOH/ZnAc, ≤6°C
6 - $Na_2S_2O_3$, ≤6°C
7 - ≤6°C not frozen

*MATRIX CODES:
DW - DRINKING WATER; WW - WASTEWATER; GW - GROUNDWATER; SW - SURFACE WATER; ST - STORM WATER; W - WATER
S - SOIL; SL - SLUDGE; SD - SOLID; A - AIR; L - LIQUID; P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: T.Wardell TW — DATE/TIME: 12/7/16 2300
RELINQUISHED BY: Will Vise (ERM) — DATE/TIME:
RECEIVED BY: — DATE/TIME:
RELINQUISHED BY: — DATE/TIME:
RECEIVED BY LAB: M Coleman — DATE/TIME: 12/08/16 1215
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
pH checked: Yes No NA — Ice: Yes No NA — Temperature: 1.0 Min: 1.0 Max: — Custody Seal: Intact Broken Not Present — Shelf Cooler — Cooler ID:

FOR LAB USE ONLY
LAB #: AZL0387
Entered into LIMS: MC
Tracking #:

2016 12 07 Hammond Huff COCs.xlsx

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

30205168

Client Name: Pace Georgia Project #:

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 6812 5101 0100

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 12-12-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:				9.
Correct Containers Used:	✓			10.
-Pace Containers Used:		✓		
Containers Intact:	✓			11.
Filtered volume received for Dissolved tests			✓	12.
All containers needing preservation have been checked.	✓			13. PHLZ
All containers needing preservation are found to be in compliance with EPA recommendation.	✓			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: AGH 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: AGH 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.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JAL
Date:	1/13/2017
Worklist:	33371
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1208859
MB concentration:	0.612
M/B Counting Uncertainty:	0.360
MB MDC:	0.695
MB Numerical Performance Indicator:	3.33
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS33371	LCSD33371
Count Date:	1/22/2017	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.496	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.808	
Target Conc. (pCi/L, g, F):	6.307	
Uncertainty (Calculated):	0.454	
Result (pCi/L, g, F):	6.561	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.798	
Numerical Performance Indicator:	0.54	
Percent Recovery:	104.03%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30205168004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30205168004DUP	
Sample Result (pCi/L, g, F):	0.344	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.356	
Sample Duplicate Result (pCi/L, g, F):	0.439	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.335	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.382	30205168004
Duplicate RPD:	24.32%	30205168004DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

1/23/17

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	1/16/2017
Worklist:	33370
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID	1208851
MB concentration:	0.056
M/B Counting Uncertainty:	0.118
MB MDC:	0.277
MB Numerical Performance Indicator:	0.94
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment

	LCSD (Y or N)?	N
	LCS33370	**LCSD33370**
Count Date:	1/17/2017	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.671	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.506	
Target Conc. (pCi/L, g, F):	8.828	
Uncertainty (Calculated):	0.415	
Result (pCi/L, g, F):	7.998	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.881	
Numerical Performance Indicator:	-1.67	
Percent Recovery:	90.60%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment

Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment

Sample I.D.:	30205168004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30205168004DUP	
Sample Result (pCi/L, g, F):	0.189	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.188	
Sample Duplicate Result (pCi/L, g, F):	0.204	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.195	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.110	30205168004
Duplicate RPD:	7.72%	30205168004DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

1/23/2

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZL0436
December 27, 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

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-5	AZL0436-01	Water	12/08/16 10:18	12/09/16 12:05
GWC-6	AZL0436-02	Water	12/08/16 11:43	12/09/16 12:05
GWC-7	AZL0436-03	Water	12/08/16 12:10	12/09/16 12:05
GWC-8	AZL0436-04	Water	12/08/16 13:50	12/09/16 12:05
GWC-9	AZL0436-05	Water	12/08/16 13:35	12/09/16 12:05
GWC-18	AZL0436-06	Water	12/08/16 14:50	12/09/16 12:05
FB-2	AZL0436-07	Water	12/08/16 09:15	12/09/16 12:05
FERB-2	AZL0436-08	Water	12/08/16 09:29	12/09/16 12:05

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436
Client ID: GWC-5
Date/Time Sampled: 12/8/2016 10:18:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0436-01
Date/Time Received: 12/9/2016 12:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	379	25	10	mg/L	SM 2540 C		1	12/14/16 19:17	12/14/16 19:17	6120357	JPT
Inorganic Anions											
Chloride	3.1	0.25	0.01	mg/L	EPA 300.0		1	12/23/16 08:53	12/24/16 03:12	6120720	RNB
Fluoride	0.06	0.30	0.02	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 03:12	6120720	RNB
Sulfate	100	10	0.51	mg/L	EPA 300.0		10	12/23/16 08:53	12/24/16 19:11	6120720	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Barium	0.100	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Boron	0.0620	0.0400	0.0064	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Calcium	67.6	25.0	1.55	mg/L	EPA 6020B		50	12/15/16 09:05	12/22/16 17:27	6120445	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Lithium	0.0300	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 20:58	6120445	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 15:21	6120427	MTC

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436
Client ID: GWC-6
Date/Time Sampled: 12/8/2016 11:43:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0436-02
Date/Time Received: 12/9/2016 12:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	281	25	10	mg/L	SM 2540 C		1	12/14/16 19:17	12/14/16 19:17	6120357	JPT
Inorganic Anions											
Chloride	2.0	0.25	0.01	mg/L	EPA 300.0		1	12/23/16 08:53	12/24/16 03:34	6120720	RNB
Fluoride	0.13	0.30	0.02	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 03:34	6120720	RNB
Sulfate	100	10	0.51	mg/L	EPA 300.0		10	12/23/16 08:53	12/24/16 19:32	6120720	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Barium	0.156	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Boron	0.0397	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Calcium	58.8	25.0	1.55	mg/L	EPA 6020B		50	12/15/16 09:05	12/22/16 17:32	6120445	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Lead	0.0001	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Lithium	0.0176	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 21:04	6120445	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 15:24	6120427	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436
Client ID: GWC-7
Date/Time Sampled: 12/8/2016 12:10:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0436-03
Date/Time Received: 12/9/2016 12:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	373	25	10	mg/L	SM 2540 C		1	12/14/16 19:17	12/14/16 19:17	6120357	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.01	mg/L	EPA 300.0		1	12/23/16 08:53	12/24/16 04:39	6120720	RNB
Fluoride	0.24	0.30	0.02	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 04:39	6120720	RNB
Sulfate	140	10	0.51	mg/L	EPA 300.0		10	12/23/16 08:53	12/24/16 19:52	6120720	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Arsenic	0.0065	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Barium	0.0791	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Beryllium	0.0003	0.0030	0.00008	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Boron	0.0572	0.0400	0.0064	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Calcium	17.5	5.00	0.311	mg/L	EPA 6020B		10	12/15/16 09:05	12/22/16 17:38	6120445	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Cobalt	0.0419	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Lithium	0.0430	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 21:09	6120445	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 15:26	6120427	MTC

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Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436
Client ID: GWC-8
Date/Time Sampled: 12/8/2016 1:50:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0436-04
Date/Time Received: 12/9/2016 12:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	196	25	10	mg/L	SM 2540 C		1	12/14/16 19:17	12/14/16 19:17	6120357	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	12/23/16 08:53	12/24/16 05:01	6120720	RNB
Fluoride	0.15	0.30	0.02	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 05:01	6120720	RNB
Sulfate	50	10	0.51	mg/L	EPA 300.0		10	12/23/16 08:53	12/24/16 20:13	6120720	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Barium	0.0996	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Boron	0.0251	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Calcium	43.7	2.50	0.155	mg/L	EPA 6020B		5	12/15/16 09:05	12/16/16 21:21	6120445	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Lithium	0.0093	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/15/16 09:05	12/16/16 21:15	6120445	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 15:28	6120427	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436
Client ID: GWC-9
Date/Time Sampled: 12/8/2016 1:35:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0436-05
Date/Time Received: 12/9/2016 12:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	227	25	10	mg/L	SM 2540 C		1	12/14/16 19:17	12/14/16 19:17	6120357	JPT
Inorganic Anions											
Chloride	1.3	0.25	0.01	mg/L	EPA 300.0		1	12/23/16 08:53	12/24/16 05:23	6120720	RNB
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 05:23	6120720	RNB
Sulfate	69	10	0.51	mg/L	EPA 300.0		10	12/23/16 08:53	12/24/16 20:34	6120720	RNB
Metals, Total											
Antimony	0.0012	0.0030	0.0008	mg/L	EPA 6020B	J	1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Barium	0.0648	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Boron	0.0178	0.0400	0.0064	mg/L	EPA 6020B	J	1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Calcium	33.4	2.50	0.155	mg/L	EPA 6020B		5	12/15/16 09:25	12/23/16 12:56	6120446	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Lithium	0.0152	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/15/16 09:25	12/16/16 23:04	6120446	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 15:31	6120427	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436
Client ID: GWC-18
Date/Time Sampled: 12/8/2016 2:50:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0436-06
Date/Time Received: 12/9/2016 12:05:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	166	25	10	mg/L	SM 2540 C		1	12/14/16 19:17	12/14/16 19:17	6120357	JPT
Inorganic Anions											
Chloride	1.4	0.25	0.01	mg/L	EPA 300.0		1	12/23/16 08:53	12/24/16 05:45	6120720	RNB
Fluoride	0.16	0.30	0.02	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 05:45	6120720	RNB
Sulfate	14	1.0	0.05	mg/L	EPA 300.0		1	12/23/16 08:53	12/24/16 05:45	6120720	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Barium	0.0799	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Boron	0.119	0.0400	0.0064	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Calcium	39.4	2.50	0.155	mg/L	EPA 6020B		5	12/15/16 09:25	12/23/16 13:02	6120446	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Lithium	0.0133	0.0500	0.0021	mg/L	EPA 6020B	J	1	12/15/16 09:25	12/16/16 23:10	6120446	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 15:38	6120427	MTC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436
Client ID: FB-2
Date/Time Sampled: 12/8/2016 9:15:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0436-07
Date/Time Received: 12/9/2016 12:05:00PM

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	12/14/16 19:17	12/14/16 19:17	6120357	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 06:06	6120720	RNB
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/23/16 08:53	12/24/16 06:06	6120720	RNB
Sulfate	0.06	1.0	0.05	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 06:06	6120720	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:15	6120446	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 15:40	6120427	MTC

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Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436
Client ID: FERB-2
Date/Time Sampled: 12/8/2016 9:29:00AM
Matrix: Water

Project: CCR Event
Lab Number ID: AZL0436-08
Date/Time Received: 12/9/2016 12:05:00PM

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	12/14/16 19:17	12/14/16 19:17	6120357	JPT
Inorganic Anions											
Chloride	0.04	0.25	0.01	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 06:28	6120720	RNB
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	12/23/16 08:53	12/24/16 06:28	6120720	RNB
Sulfate	0.06	1.0	0.05	mg/L	EPA 300.0	J	1	12/23/16 08:53	12/24/16 06:28	6120720	RNB
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Calcium	0.0326	0.500	0.0311	mg/L	EPA 6020B	J	1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	12/15/16 09:25	12/16/16 23:21	6120446	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	12/15/16 10:35	12/15/16 15:42	6120427	MTC

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120357 - SM 2540 C											
Blank (6120357-BLK1)						Prepared & Analyzed: 12/14/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6120357-BS1)						Prepared & Analyzed: 12/14/16					
Total Dissolved Solids	389	25	10	mg/L	400.00		97	84-108			
Duplicate (6120357-DUP1)		**Source: AZL0436-05**				Prepared & Analyzed: 12/14/16					
Total Dissolved Solids	237	25	10	mg/L		227			4	10	
Duplicate (6120357-DUP2)		**Source: AZL0436-07**				Prepared & Analyzed: 12/14/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	

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December 27, 2016

Report No.: AZL0436

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120720 - EPA 300.0											
Blank (6120720-BLK1)						Prepared: 12/23/16 Analyzed: 12/24/16					
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 (6120720-BS1)						Prepared: 12/23/16 Analyzed: 12/24/16					
Chloride	10.1	0.25	0.01	mg/L	10.010		101	90-110			
Fluoride	10.6	0.30	0.02	mg/L	10.020		106	90-110			
Sulfate	10.1	1.0	0.05	mg/L	10.020		101	90-110			
Matrix Spike (6120720-MS1)		**Source: AZL0436-02**				Prepared: 12/23/16 Analyzed: 12/24/16					
Chloride	11.0	0.25	0.01	mg/L	10.010	1.96	91	90-110			
Fluoride	9.72	0.30	0.02	mg/L	10.020	0.13	96	90-110			
Sulfate	94.9	1.0	0.05	mg/L	10.020	95.1	NR	90-110			QM-02
Matrix Spike (6120720-MS2)		**Source: AZL0437-07**				Prepared: 12/23/16 Analyzed: 12/24/16					
Chloride	25.4	0.25	0.01	mg/L	10.010	17.2	83	90-110			QM-05
Fluoride	14.7	0.30	0.02	mg/L	10.020	1.56	131	90-110			QM-05
Sulfate	301	1.0	0.05	mg/L	10.020	315	NR	90-110			QM-02
Matrix Spike Dup (6120720-MSD1)		**Source: AZL0436-02**				Prepared: 12/23/16 Analyzed: 12/24/16					
Chloride	11.8	0.25	0.01	mg/L	10.010	1.96	99	90-110	7	15	
Fluoride	10.5	0.30	0.02	mg/L	10.020	0.13	104	90-110	8	15	
Sulfate	94.8	1.0	0.05	mg/L	10.020	95.1	NR	90-110	0.03	15	QM-02

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Report No.: AZL0436

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120427 - EPA 7470A											
Blank (6120427-BLK1)						Prepared & Analyzed: 12/15/16					
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6120427-BS1)						Prepared & Analyzed: 12/15/16					
Mercury	0.00235	0.00050	0.000041	mg/L	2.5000E-3		94	80-120			
Matrix Spike (6120427-MS1)		**Source: AZL0436-01**				Prepared & Analyzed: 12/15/16					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (6120427-MSD1)		**Source: AZL0436-01**				Prepared & Analyzed: 12/15/16					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125	0.09	20	
Post Spike (6120427-PS1)		**Source: AZL0436-01**				Prepared & Analyzed: 12/15/16					
Mercury	1.72			ug/L	1.6667	-0.00768	103	80-120			
Batch 6120445 - EPA 3005A											
Blank (6120445-BLK1)						Prepared: 12/15/16 Analyzed: 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							

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Report No.: AZL0436

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)						Prepared: 12/15/16 Analyzed: 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)		**Source: AZL0418-01**				Prepared: 12/15/16 Analyzed: 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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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436

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)		**Source: AZL0418-01**			Prepared: 12/15/16 Analyzed: 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)		**Source: AZL0418-01**			Prepared: 12/15/16 Analyzed: 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			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120446 - EPA 3005A											
Blank (6120446-BLK1)						Prepared: 12/15/16 Analyzed: 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							
LCS (6120446-BS1)						Prepared: 12/15/16 Analyzed: 12/16/16					
Antimony	0.113	0.0030	0.0008	mg/L	0.10000		113	80-120			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000		101	80-120			
Barium	0.101	0.0100	0.0004	mg/L	0.10000		101	80-120			
Beryllium	0.0946	0.0030	0.00008	mg/L	0.10000		95	80-120			
Boron	0.952	0.0400	0.0064	mg/L	1.0000		95	80-120			
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000		103	80-120			
Calcium	1.02	0.500	0.0311	mg/L	1.0000		102	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	0.105	0.0250	0.0005	mg/L	0.10000		105	80-120			
Lead	0.101	0.0050	0.0001	mg/L	0.10000		101	80-120			
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000		105	80-120			
Nickel	0.103	0.0100	0.0006	mg/L	0.10000		103	80-120			
Selenium	0.0982	0.0100	0.0010	mg/L	0.10000		98	80-120			
Silver	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Thallium	0.101	0.0010	0.0002	mg/L	0.10000		101	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	0.0940	0.0500	0.0021	mg/L	0.10000		94	80-120			

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120446 - EPA 3005A											
Matrix Spike (6120446-MS1)		**Source: AZL0436-05**				Prepared: 12/15/16 Analyzed: 12/16/16					
Antimony	0.110	0.0030	0.0008	mg/L	0.10000	0.0012	109	75-125			
Arsenic	0.103	0.0050	0.0016	mg/L	0.10000	ND	103	75-125			
Barium	0.154	0.0100	0.0004	mg/L	0.10000	0.0648	89	75-125			
Beryllium	0.0886	0.0030	0.00008	mg/L	0.10000	ND	89	75-125			
Boron	0.913	0.0400	0.0064	mg/L	1.0000	0.0178	90	75-125			
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125			
Calcium	33.2	2.50	0.155	mg/L	1.0000	33.4	NR	75-125			QM-02
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125			
Copper	0.102	0.0250	0.0005	mg/L	0.10000	ND	102	75-125			
Lead	0.0996	0.0050	0.0001	mg/L	0.10000	ND	100	75-125			
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000	ND	105	75-125			
Nickel	0.103	0.0100	0.0006	mg/L	0.10000	0.0023	101	75-125			
Selenium	0.0993	0.0100	0.0010	mg/L	0.10000	ND	99	75-125			
Silver	0.0987	0.0100	0.0005	mg/L	0.10000	ND	99	75-125			
Thallium	0.0995	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	0.107	0.0100	0.0021	mg/L	0.10000	ND	107	75-125			
Lithium	0.102	0.0500	0.0021	mg/L	0.10000	0.0152	86	75-125			
Matrix Spike Dup (6120446-MSD1)		**Source: AZL0436-05**				Prepared: 12/15/16 Analyzed: 12/16/16					
Antimony	0.113	0.0030	0.0008	mg/L	0.10000	0.0012	112	75-125	2	20	
Arsenic	0.104	0.0050	0.0016	mg/L	0.10000	ND	104	75-125	1	20	
Barium	0.157	0.0100	0.0004	mg/L	0.10000	0.0648	93	75-125	2	20	
Beryllium	0.0926	0.0030	0.00008	mg/L	0.10000	ND	93	75-125	4	20	
Boron	0.916	0.0400	0.0064	mg/L	1.0000	0.0178	90	75-125	0.3	20	
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000	ND	103	75-125	2	20	
Calcium	34.4	2.50	0.155	mg/L	1.0000	33.4	96	75-125	4	20	
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	ND	105	75-125	2	20	
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125	0.8	20	
Copper	0.104	0.0250	0.0005	mg/L	0.10000	ND	104	75-125	1	20	
Lead	0.0982	0.0050	0.0001	mg/L	0.10000	ND	98	75-125	1	20	
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000	ND	105	75-125	0.05	20	
Nickel	0.106	0.0100	0.0006	mg/L	0.10000	0.0023	104	75-125	3	20	
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125	2	20	
Silver	0.0994	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	0.7	20	
Thallium	0.0998	0.0010	0.0002	mg/L	0.10000	ND	100	75-125	0.3	20	
Vanadium	0.108	0.0100	0.0071	mg/L	0.10000	ND	108	75-125	4	20	
Zinc	0.110	0.0100	0.0021	mg/L	0.10000	ND	110	75-125	2	20	
Lithium	0.105	0.0500	0.0021	mg/L	0.10000	0.0152	90	75-125	3	20	

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Report No.: AZL0436

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6120446 - EPA 3005A											
Post Spike (6120446-PS1)		**Source: AZL0436-05**			Prepared: 12/15/16 Analyzed: 12/16/16						
Antimony	105			ug/L	100.00	1.16	104	80-120			
Arsenic	105			ug/L	100.00	-0.392	105	80-120			
Barium	158			ug/L	100.00	64.8	94	80-120			
Beryllium	92.0			ug/L	100.00	0.0162	92	80-120			
Boron	932			ug/L	1000.0	17.8	91	80-120			
Cadmium	103			ug/L	100.00	0.0069	103	80-120			
Calcium	33200			ug/L	1000.0	33400	NR	80-120			QM-02
Chromium	103			ug/L	100.00	0.0236	103	80-120			
Cobalt	101			ug/L	100.00	0.446	101	80-120			
Copper	99.3			ug/L	100.00	0.0839	99	80-120			
Lead	96.2			ug/L	100.00	0.0213	96	80-120			
Molybdenum	107			ug/L	100.00	0.255	106	80-120			
Nickel	102			ug/L	100.00	2.31	100	80-120			
Selenium	104			ug/L	100.00	-0.0806	104	80-120			
Silver	99.8			ug/L	100.00	0.0111	100	80-120			
Thallium	96.9			ug/L	100.00	0.106	97	80-120			
Vanadium	106			ug/L	100.00	-1.30	106	80-120			
Zinc	105			ug/L	100.00	1.83	104	80-120			
Lithium	102			ug/L	100.00	15.2	87	80-120			

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 27, 2016

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER
CONTAINER TYPE:							P	P	P	
PRESERVATION:							3	7	3	
12/08/16	10:18	W		X	GWC-5	3	1	1	1	1
12/08/16	11:43	W		X	GWC-6	3	1	1	1	2
12/08/16	12:10	W		X	GWC-7	3	1	1	1	3
12/08/16	13:50	W		X	GWC-8	3	1	1	1	4
12/08/16	13:35	W		X	GWC-9	3	1	1	1	5
12/08/16	14:50	W		X	GWC-18	3	1	1	1	6
12/08/16	9:15	W		X	FB-2	3	1	1	1	7
12/08/16	9:29	W		X	FERB-2	3	1	1	1	8

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M.Rogers ME
M.Thomas MT W.Virgo WV

DATE/TIME:

RELINQUISHED BY: [signature]

DATE/TIME: 12-9-16/1205

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY: [signature]

DATE/TIME:

FOR LAB USE ONLY
LAB #: A2L0436
Entered into LIMS: MR

RECEIVED BY LAB: [signature]

DATE/TIME: 12/9/16 1205

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

Tracking #:

Ice Checked: Yes No NA

Ice: Yes No NA

Temp Blank: 2.5 °C Min: 0.5 °C Max

Custody Seal: Intact Broken Not Present

# of Coolers

Cooler ID:

PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 12/12/2016 11:09:25AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 12/09/16 12:05

Work Order: AZL0436
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 8 **#Containers:** 24

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:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

January 23, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 30205167

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
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30205167

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 30205167

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30205167001	**GWC-5**	Water	12/08/16 10:18	12/12/16 09:20
30205167002	**GWC-6**	Water	12/08/16 11:43	12/12/16 09:20
30205167003	**GWC-7**	Water	12/08/16 12:10	12/12/16 09:20
30205167004	**GWC-8**	Water	12/08/16 13:50	12/12/16 09:20
30205167005	**GWC-9**	Water	12/08/16 13:35	12/12/16 09:20
30205167006	**GWC-18**	Water	12/08/16 14:50	12/12/16 09:20
30205167007	**FB-2**	Water	12/08/16 09:15	12/12/16 09:20
30205167008	**FERB-2**	Water	12/08/16 09:29	12/12/16 09:20

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30205167

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30205167001	**GWC-5**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205167002	**GWC-6**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205167003	**GWC-7**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205167004	**GWC-8**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205167005	**GWC-9**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205167006	**GWC-18**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205167007	**FB-2**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1
30205167008	**FERB-2**	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	RMK	1

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205167

Sample: GWC-5 **Lab ID: 30205167001** Collected: 12/08/16 10:18 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	**0.0514 ± 0.0846 (0.186) C:88% T:NA**	pCi/L	01/16/17 08:46	13982-63-3	
Radium-228	EPA 9320	**1.82 ± 0.638 (0.912) C:69% T:80%**	pCi/L	01/22/17 12:53	15262-20-1	
Total Radium	Total Radium Calculation	**1.87 ± 0.723 (1.10)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWC-6 **Lab ID: 30205167002** Collected: 12/08/16 11:43 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	**0.224 ± 0.142 (0.213) C:88% T:NA**	pCi/L	01/16/17 08:46	13982-63-3	
Radium-228	EPA 9320	**1.20 ± 0.549 (0.929) C:66% T:82%**	pCi/L	01/22/17 12:53	15262-20-1	
Total Radium	Total Radium Calculation	**1.42 ± 0.691 (1.14)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWC-7 **Lab ID: 30205167003** Collected: 12/08/16 12:10 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	**0.305 ± 0.155 (0.183) C:89% T:NA**	pCi/L	01/16/17 08:46	13982-63-3	
Radium-228	EPA 9320	**2.06 ± 0.717 (1.03) C:66% T:74%**	pCi/L	01/22/17 12:53	15262-20-1	
Total Radium	Total Radium Calculation	**2.37 ± 0.872 (1.21)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWC-8 **Lab ID: 30205167004** Collected: 12/08/16 13:50 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
Radium-226	EPA 9315	**-0.0107 ± 0.0553 (0.180) C:88% T:NA**	pCi/L	01/16/17 09:36	13982-63-3	
Radium-228	EPA 9320	**1.39 ± 0.578 (0.939) C:68% T:84%**	pCi/L	01/22/17 12:53	15262-20-1	
Total Radium	Total Radium Calculation	**1.39 ± 0.633 (1.12)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWC-9 **Lab ID: 30205167005** Collected: 12/08/16 13:35 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	**0.125 ± 0.137 (0.246) C:97% T:NA**	pCi/L	01/17/17 08:09	13982-63-3	
Radium-228	EPA 9320	**0.654 ± 0.423 (0.797) C:66% T:86%**	pCi/L	01/22/17 12:53	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205167

Sample: GWC-9 **Lab ID: 30205167005** Collected: 12/08/16 13:35 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 Calculation	**0.779 ± 0.560 (1.04)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: GWC-18 **Lab ID: 30205167006** 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
Radium-226	EPA 9315	**0.0874 ± 0.144 (0.317) C:91% T:NA**	pCi/L	01/17/17 08:09	13982-63-3	
Radium-228	EPA 9320	**0.580 ± 0.380 (0.710) C:66% T:89%**	pCi/L	01/22/17 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.667 ± 0.524 (1.03)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: FB-2 **Lab ID: 30205167007** Collected: 12/08/16 09:15 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	**0.112 ± 0.167 (0.361) C:89% T:NA**	pCi/L	01/17/17 08:09	13982-63-3	
Radium-228	EPA 9320	**0.685 ± 0.416 (0.774) C:72% T:88%**	pCi/L	01/22/17 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.797 ± 0.583 (1.14)**	pCi/L	01/23/17 12:09	7440-14-4	

Sample: FERB-2 **Lab ID: 30205167008** Collected: 12/08/16 09:29 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	**0.0653 ± 0.133 (0.310) C:93% T:NA**	pCi/L	01/17/17 08:09	13982-63-3	
Radium-228	EPA 9320	**0.481 ± 0.349 (0.670) C:75% T:83%**	pCi/L	01/22/17 12:54	15262-20-1	
Total Radium	Total Radium Calculation	**0.546 ± 0.482 (0.980)**	pCi/L	01/23/17 12:09	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205167

QC Batch: 245738 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30205167001, 30205167002, 30205167003, 30205167004

METHOD BLANK: 1208849 Matrix: Water
Associated Lab Samples: 30205167001, 30205167002, 30205167003, 30205167004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.754 ± 0.449 (0.836) C:74% T:81%	pCi/L	01/22/17 12:51	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205167

QC Batch: 245740 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30205167005, 30205167006, 30205167007, 30205167008

METHOD BLANK: 1208859 Matrix: Water
Associated Lab Samples: 30205167005, 30205167006, 30205167007, 30205167008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.612 ± 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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205167

QC Batch: 245737 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30205167001, 30205167002, 30205167003, 30205167004

METHOD BLANK: 1208848 Matrix: Water
Associated Lab Samples: 30205167001, 30205167002, 30205167003, 30205167004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0643 ± 0.137 (0.321) C:95% T:NA	pCi/L	01/13/17 08:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30205167

QC Batch: 245739 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30205167005, 30205167006, 30205167007, 30205167008

METHOD BLANK: 1208851 Matrix: Water
Associated Lab Samples: 30205167005, 30205167006, 30205167007, 30205167008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0563 ± 0.118 (0.277) C:97% T:NA	pCi/L	01/17/17 08:09	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30205167

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AZL0436 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 1/10/2017

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

WO#:30205167

30205167

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis: Radium 226, 228, Total	LAB USE ONLY
1	GWC-5	G	12/8/2016 10:18	AZL0436-01	GW	1	X	001
2	GWC-6	G	12/8/2016 11:43	AZL0436-02	GW	1	X	002
3	GWC-7	G	12/8/2016 12:10	AZL0436-03	GW	1	X	003
4	GWC-8	G	12/8/2016 13:50	AZL0436-04	GW	1	X	004
5	GWC-9	G	12/8/2016 13:35	AZL0436-05	GW	1	X	005
6	GWC-18	G	12/8/2016 14:50	AZL0436-06	GW	1	X	006
7	FB-2	G	12/8/2016 9:15	AZL0436-07	W	1	X	007
8	FERB-2	G	12/8/2016 9:29	AZL0436-08	W	1	X	008
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Karen Hill	12-12-16 0920	
2					
3					

Cooler Temperature on Receipt N/A °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

30205167

CHAIN OF COUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

ANALYSIS REQUESTED

	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)
CONTAINER TYPE:	P	P	P
PRESERVATION:	3	7	3

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
12/08/16	10:18	W		X	GWC-5	3	1	1	1	1	
12/08/16	11:43	W		X	GWC-6	3	1	1	1	2	
12/08/16	12:10	W		X	GWC-7	3	1	1	1	3	
12/08/16	13:50	W		X	GWC-8	3	1	1	1	4	
12/08/16	13:35	W		X	GWC-9	3	1	1	1	5	
12/08/16	14:50	W		X	GWC-18	3	1	1	1	6	
12/08/16	9:15	W		X	FB-2	3	1	1	1	7	
12/08/16	9:29	W		X	FERB-2	3	1	1	1	8	

CONTAINER TYPE:
- P - PLASTIC
- A - AMBER GLASS
- G - CLEAR GLASS
- V - VOA VIAL
- S - STERILE
- O - OTHER

PRESERVATION:
- 1 - HCl, ≤6°C
- 2 - H_2SO_4, ≤6°C
- 3 - HNO_3
- 4 - NaOH, ≤6°C
- 5 - NaOH/ZnAc, ≤6°C
- 6 - $Na_2S_2O_3$, ≤6°C
- 7 - ≤6°C not frozen

*MATRIX CODES:
- DW - DRINKING WATER
- WW - WASTEWATER
- GW - GROUNDWATER
- SW - SURFACE WATER
- ST - STORM WATER
- W - WATER
- S - SOIL
- SL - SLUDGE
- SD - SOLID
- A - AIR
- L - LIQUID
- P - PRODUCT

SAMPLED BY AND TITLE: M.Rogers MR, M.Thomas MT, W.Virgo WFV

DATE/TIME:

RELINQUISHED BY: [signature]

DATE/TIME: 12-9-16/1205

RECEIVED BY:

DATE/TIME:

RELINQUISHED BY:

DATE/TIME:

RECEIVED BY LAB: [signature]

DATE/TIME: 12/9/16 1205

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT (circled) OTHER FS

pH checked: Yes No NA

Ice: Yes (circled) No NA

Temperature: 2.3 Corr 0.5 C

Custody Seal: Intact Broken Not Present

# of Coolers

Cooler ID:

FOR LAB USE ONLY

LAB #: A Z60436

Entered into LIMS:

Tracking #:

2016 12 08 Hammond Huff COCs.xlsx

Sample Condition Upon Receipt Pittsburgh

30205167

Pace Analytical

Client Name: Pace Georgia Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 6812 5101 0100

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 12-12-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:				9.
Correct Containers Used:	✓			10.
-Pace Containers Used:		✓		
Containers Intact:	✓			11.
Filtered volume received for Dissolved tests			✓	12.
All containers needing preservation have been checked.	✓			13. PHL2
All containers needing preservation are found to be in compliance with EPA recommendation.	✓			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: AMR 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: AMR 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.

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102465001	GWA-2, Water	3/22/2016 1:27:00 PM	Ga Tech
102465002	GWA-1, Water	3/22/2016 3:47:00 PM	Ga Tech
102465003	DUP-01, Water	3/22/2016	Ga Tech
102465004	GWA-11, Water	3/22/2016 5:03:00 PM	Ga Tech
102465005	GWA-4, Water	3/22/2016 4:47:00 PM	Ga Tech
102465006	GWA-3, Water	3/22/2016 2:01:00 PM	Ga Tech

Certification

Data approved by Gary Smith

Georgia Power Company

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102465001
Collection Date	3/22/2016 1:27:00 PM
Sampling Media	Water
Station	GWA-2

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.52E-01
Ra-228	Ga Tech	pCi/L			3.02E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102465002
Collection Date	3/22/2016 3:47:00 PM
Sampling Media	Water
Station	GWA-1

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.93E-01
Ra-228	Ga Tech	pCi/L			5.28E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102465003
Collection Date	3/22/2016
Sampling Media	Water
Station	DUP-01

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.20E-01
Ra-228	Ga Tech	pCi/L			5.77E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102465004
Collection Date	3/22/2016 5:03:00 PM
Sampling Media	Water
Station	GWA-11

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.24E-01
Ra-228	Ga Tech	pCi/L			5.10E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102465005
Collection Date	3/22/2016 4:47:00 PM
Sampling Media	Water
Station	GWA-4

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.08E-01
Ra-228	Ga Tech	pCi/L			6.70E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102465006
Collection Date	3/22/2016 2:01:00 PM
Sampling Media	Water
Station	GWA-3

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.06E-01
Ra-228	Ga Tech	pCi/L			5.84E-01

Georgia Power Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY Work Order No. 102465
Reviewed By: [signature] 3-23-16

12 Page ____ of ____

[X] 13 Standard Turnaround Time
[ ] # of Business Days (Rush) *(Must be cleared through Env. Lab. prior to shipment)*

Company: 1 Southern Company Services
Report To John Pugh
Address: 2 42 Inverness Center Parkway Birmingham, AL 35242
Phone/Fax: 3 205.992.6781
Contact: 4 Joju Abraham
Project Location: 5 Plant Hammond
Account Number: 6
Special Instructions: 7 CCR + Hammond State GW

Sample Shipment Date: 8 3/22/2016
Sampled By: 9 Tracy Wardell (TW), Myles Rogers (MR) William Virgo (WV), Gregory Jirak (GJ)
Print Name / Signature
Sample Received Date: 10 3/23/16 @ 8:25
Sample Received By: 11 [signature]
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE 21: HNO3 N | HNO3 N | Ice I | HNO3 N

ANALYSIS REQUESTED 22

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 16 Date	Time	Sample Description 17	Sample Type 18	Matrix 19	No. of Containers 20	Metals APP. III + IV EPA 6020 + EPA 7470	Hammond State GW Attached EPA 6020 + EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226+228 Ga Tech				LAB USE ONLY 26 Comments
102465001	GWA-2	3/22/16	13:27	Huffaker Rd	G	GW	3	X	X	X	X				
2	GWA-1	3/22/16	15:47	Huffaker Rd	G	GW	3	X	X	X	X				
3	DUP-01	3/22/16		Huffaker Rd	G	GW	3	X	X	X	X				

Sample Type Key: 23
G-Grab C-Composite
O-Other

Matrix Key: 24
O-Oil SW-Surface Water
S-Solid GW-Ground Water
SL-Sludge WW-Waste Water
W-Wipe DW-Drinking Water
LQ-Liquid OW-Other Water

Preservative Key: 25
H-Hydrochloric Acid
N-Nitric Acid
S-Sulfuric Acid
SH-Sodium Hydroxide
P-Phosphoric Acid
ST-Sodium Thiosulfate
I-Ice
U-Unpreserved
O-Other (Specify)

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: 28 [signature] Seal #20160322-1 Date/Time 3/22/2016 19:45
Received by: 29 Date/Time
Relinquished by: Date/Time
Received by: Date/Time

LAB USE ONLY: Sample Receipt Information 30
2.3°C (GPEL-IR-3P), with ice, cooler in good condition, no seal AMJ 3/23/16
PHL2, Hard. Missing collection time on DUP-01.

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Georgia Power Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY — Work Order No. 102465 — Reviewed By:

[12] Page _____ of _____

[13] Standard Turnaround Time [X]

# of Business Days (Rush) [ ] *(Must be cleared through Env. Lab. prior to shipment)*

Company: [1] Southern Company Services
Report To John Pugh
Address: [2] 42 Inverness Center Parkway
Birmingham, AL 35242

Phone/Fax: [3] 205.992.6781
Contact: [4] Toju Abraham
Project Location: [5] Plant Hammond
Account Number: [6]
Special Instructions: [7] CCR + Hammond State GW

Sample Shipment Date: [8] 3/22/2016
Sampled By: [9] Tracy Wardell (TCW), Myles Rogers (MR) — Print Name
William Virgo (WV) Gregory Tirak (GT) — Signature
Sample Received Date: [10] 3/23/16 @ 8:25
Sample Received By: [11]
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE [21]

HNO3	HNO3	ICE	HNO3			
N	N	I	H			

ANALYSIS REQUESTED [22]

Sample Type Key: [23] G-Grab C-Composite O-Other

Matrix Key: [24] O-Oil S-Solid SL-Sludge W-Wipe LQ-Liquid SW-Surface Water GW-Ground Water WW-Waste Water DW-Drinking Water OW-Other Water

Preservative Key: [25] H-Hydrochloric Acid N-Nitric Acid S-Sulfuric Acid SH-Sodium Hydroxide P-Phosphoric Acid ST-Sodium Thiosulfate I-Ice U-Unpreserved O-Other (Specify)

LAB USE ONLY [14] LAB ID	Sample Number [15]	Collection [16] Date	Time	Sample Description [17]	[18] Sample Type	[19] Matrix	[20] No. of Containers	Metals 6PP-MW EPA 6020 & EPA 7470	Hammond State GW Attached EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300	TDS SM 2540C	Radium 226+228 Ga Tech				LAB USE ONLY [26] Comments
102465004	GWA-11	3/22/16	17:03	Huffaker Rd.	G	GW	3	X	X	X	X					
5	GWA-4	3/22/16	16:47	Huffaker Rd.	G	GW	3	X	X	X	X					
6	GWA-3	3/22/16	14:01	Huffaker Rd.	G	GW	3	X	X	X	X					

FOR CHAIN OF CUSTODY USE ONLY [27]

Relinquished by: [28] Seal # 20160322-2 Date/Time 3/22/2016 19:45
Received by: [29] Date/Time
Relinquished by: Date/Time
Received by: Date/Time

LAB USE ONLY: Sample Receipt Information [30]
1.6°C (GPEL-IR-4), with ice, coolers in good condition, seal, PHL2 Hand.

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client: Hammond **# of Samples:** 6
Workorder No.: 102465 **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	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	2.3
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	False	Missing collection time on DUP-01 on sample container label and on COC.
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:

Completed By: Jassim, Ayssar **Date: 03/23/2016**

ENVIRONMENTAL LABORATORY

QUALITY CONTROL DATA

Workorders: 102383, 102467, 102465, 102474

QC Batch: 16893 Analysis Method: Ga Tech
QC Batch Method: Ga Tech
Associated Lab Samples: 102383001-003, 102467001-003, 102465001-006, 102474001-008

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.087E-01	1.0	
Radium-228	pCi/l	<7.882E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.787	5.193	108	70-130	
Radium-228	pCi/l	4.893	4.629	95	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	3.64	20	
Radium-228	pCi/l	12.3	20	

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102474001	GWC-5, Water	3/23/2016 10:59:00 AM	Ga Tech
102474002	GWC-6, Water	3/23/2016 11:11:00 AM	Ga Tech
102474003	Dup -2, Water	3/23/2016	Ga Tech
102474004	GWC-7, Water	3/23/2016 1:06:00 PM	Ga Tech
102474005	GWC-10, Water	3/23/2016 12:31:00 PM	Ga Tech
102474006	GWC-22, Water	3/23/2016 2:51:00 PM	Ga Tech
102474007	GWC-9, Water	3/23/2016 2:52:00 PM	Ga Tech
102474008	GWC-8, Water	3/23/2016 4:12:00 PM	Ga Tech
102474009	GWC-23, Water	3/23/2016 6:10:00 PM	Ga Tech
102474010	GWC-20, Water	3/23/2016 6:32:00 PM	Ga Tech

Certification

Data approved by Gary Smith
Georgia Power Company

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474001
Collection Date	3/23/2016 10:59:00 AM
Sampling Media	Water
Station	GWC-5

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.27E-01
Ra-228	Ga Tech	pCi/L			5.95E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474002
Collection Date	3/23/2016 11:11:00 AM
Sampling Media	Water
Station	GWC-6

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			3.97E-01
Ra-228	Ga Tech	pCi/L			7.76E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474003
Collection Date	3/23/2016
Sampling Media	Water
Station	Dup -2

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.84E-01
Ra-228	Ga Tech	pCi/L			5.47E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474004
Collection Date	3/23/2016 1:06:00 PM
Sampling Media	Water
Station	GWC-7

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L	1.09E+00	**+/-** 9.39E-01	
Ra-228	Ga Tech	pCi/L			7.82E-01
Total Isotopic Radium	Ga Tech	pCi/L	1.09E+00		

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474005
Collection Date	3/23/2016 12:31:00 PM
Sampling Media	Water
Station	GWC-10

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.59E-01
Ra-228	Ga Tech	pCi/L			6.87E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474006
Collection Date	3/23/2016 2:51:00 PM
Sampling Media	Water
Station	GWC-22

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.65E-01
Ra-228	Ga Tech	pCi/L			3.05E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474007
Collection Date	3/23/2016 2:52:00 PM
Sampling Media	Water
Station	GWC-9

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.63E-01
Ra-228	Ga Tech	pCi/L			5.33E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474008
Collection Date	3/23/2016 4:12:00 PM
Sampling Media	Water
Station	GWC-8

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.80E-01
Ra-228	Ga Tech	pCi/L			4.64E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474009
Collection Date	3/23/2016 6:10:00 PM
Sampling Media	Water
Station	GWC-23

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.53E-01
Ra-228	Ga Tech	pCi/L			7.03E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102474010
Collection Date	3/23/2016 6:32:00 PM
Sampling Media	Water
Station	GWC-20

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.99E-01
Ra-228	Ga Tech	pCi/L			8.19E-01

Georgia Power Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 102474
Reviewed By: 3-24-16

[12] Page 1 of 1

[13] X Standard Turnaround Time

☐ # of Business Days (Rush)
(Must be cleared through Env. Lab. prior to shipment)

Company: [1] Southern Company Services
Report To John Pugh
Address: [2] 42 Inverness Center Parkway
Birmingham, AL 35242

Phone/Fax: [3] 205.992.6781
Contact: [4] Joju Abraham
Project Location: [5] Plant Hammond - Huffaker Rd.
Account Number: [6]
Special Instructions: [7] CCR + Hammond State GW

Sample Shipment Date: [8] 3/23/2016
Sampled By: [9] Will Virgo (WV) Myles Rogers (MR)
Print Name
Greg Jirak (GJ) Tracy Wardell (TW)
Signature
Sample Received Date: [10]
Sample Received By: [11]

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE [21]

N	N	I	N			

ANALYSIS REQUESTED [22]

LAB USE ONLY [14] LAB ID	Sample Number [15]	Collection [16] Date	Collection [16] Time	Sample Description [17]	[18] Sample Type	[19] Matrix	[20] No. of Containers	Appendix III & IV Metals + Hg EPA 6020 & EPA 7470	Hammond Huffaker State GW (Attached) EPA 6020 & EPA 7470	Cl, F, SO4 EPA 300	TDS SM 2540C	Radium 226+228 Ga Tech				
102474-01	GWC-5	3/23/16	10:59	Huffaker Rd. - Groundwater	G	GW	3	X	X	X		X				
-02	GWC-6	3/23/16	11:11	Huffaker Rd - Groundwater	G	GW	3	X	X	X		X				
-03	~~DUP-02~~ DUP-2	3/23/16	-	Huffaker Rd. - Groundwater	G	GW	3	X	X	X		X				

Sample Type Key: [23]
G-Grab C-Composite
O-Other

Matrix Key: [24]
O-Oil SW-Surface Water
S-Solid GW-Ground Water
SL-Sludge WW-Waste Water
W-Wipe DW-Drinking Water
LQ-Liquid OW-Other Water

Preservative Key: [25]
H-Hydrochloric Acid
N-Nitric Acid
S-Sulfuric Acid
SH-Sodium Hydroxide
P-Phosphoric Acid
ST-Sodium Thiosulfate
I-Ice
U-Unpreserved
O-Other (Specify)

LAB USE ONLY [26] Comments

FOR CHAIN OF CUSTODY USE ONLY [27]

Relinquished by: [28] Seal #20160323-1 Date/Time 3/23/2016 20:05
Received by: [29] Date/Time
Relinquished by: Date/Time
Received by: Date/Time 3/24/16 @ 8:25

LAB USE ONLY: Sample Receipt Information [30]
3.2°C (GFAL-IR-32), with ice, cooler in good condition, Seal: PHL2
Hand.

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

2

Georgia Power Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY Work Order No. 102474
Reviewed By: [signature] 3-24-16

12 Page ____ of ____

13 Standard Turnaround Time: X
# of Business Days (Rush): ____
(Must be cleared through Env. Lab. prior to shipment)

Company: 1 Southern Company Services
Report To John Pugh
Address: 2 42 Inverness Center Parkway Birmingham, AL 35242
Phone/Fax: 3 205.992.6781
Contact: 4 Joju Abraham
Project Location: 5 Plant Hammond - Huffaker Rd
Account Number: 6
Special Instructions: 7 CCR + Hammond State GW

Sample Shipment Date: 8 3/23/2016
Sampled By: 9 Will Virgo (WV) Myles Rogers (MR) Tracy Wardell (TW) Greg Jirak (GJ)
Print Name / Signature
Sample Received Date: 10
Sample Received By: 11
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE 21: N | N | I (struck) | N

ANALYSIS REQUESTED 22

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 16 Date	Time	Sample Description 17	18 Sample Type	19 Matrix	20 No. of Containers	Metals App III + IV EPA 6020 + EPA 7470	Ammonia/Huffaker State GW (Attached) EPA 6020 + EPA 7470	Cl, F, SO4 EPA 300 TDS SM2540C	Radium 226+228 Ga Tech				LAB USE ONLY 26 Comments
102474004	GWC-7	3/23/16	13:06	Huffaker Rd. - Groundwater	G	GW	3	X	X	X	X				
5	GWC-10	3/23/16	12:31	Huffaker Rd - Groundwater	G	GW	3	X	X	X	X				
6	GWC-22	3/23/16	14:51	Huffaker Rd. Groundwater	G	GW	3	X	X	X	X				

Sample Type Key: 23 G-Grab, C-Composite, O-Other
Matrix Key: 24 O-Oil, S-Solid, SL-Sludge, W-Wipe, LQ-Liquid, SW-Surface Water, GW-Ground Water, WW-Waste Water, DW-Drinking Water, OW-Other Water
Preservative Key: 25 H-Hydrochloric Acid, N-Nitric Acid, S-Sulfuric Acid, SH-Sodium Hydroxide, P-Phosphoric Acid, ST-Sodium Thiosulfate, I-Ice, U-Unpreserved, O-Other (Specify)

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: 28 [signature] Seal #20160323-2 Date/Time 3/23/2016 20:05
Received by: 29 Date/Time
Relinquished by: Date/Time
Received by: [signature] Date/Time 3/24/16 @ 8:25

LAB USE ONLY: Sample Receipt Information 30
3.2C (GPEL-IR-3P) with ice, cooler in good Condition, Seal: PHL2 Hand.

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Georgia Power Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 102474
Reviewed By: [illegible] 3-24-16

[12] Page ____ of ____

[X] [13] Standard Turnaround Time

[ ] # of Business Days (Rush)
(Must be cleared through Env. Lab. prior to shipment)

Company: [1] Southern Company Services
Report To John Pugh
Address: [2] 42 Inverness Center Parkway
Birmingham, AL 35242

Phone/Fax: [3] 205.992.6781
Contact: [4] Joju Abraham
Project Location: [5] Plant Hammond-Huffaker
Account Number: [6]
Special Instructions: [7] CCR + Hammond State GW

Sample Shipment Date: [8] 3/23/2016
Sampled By: [9] Will Virgo (WV) Myles Rogers (MR)
Print Name
Greg Jirak (GJ) Tracy Wardell (TW)
Signature
Sample Received Date: [10]
Sample Received By: [11]

Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

PRESERVATIVE [21]

HNO3	HNO3	Ice	HNO3			
N	N	I	N			

ANALYSIS REQUESTED [22]

Sample Type Key: [23]
G-Grab C-Composite
O-Other

Matrix Key: [24]
O-Oil SW-Surface Water
S-Solid GW-Ground Water
SL-Sludge WW-Waste Water
W-Wipe DW-Drinking Water
LQ-Liquid OW-Other Water

Preservative Key: [25]
H-Hydrochloric Acid
N-Nitric Acid
S-Sulfuric Acid
SH-Sodium Hydroxide
P-Phosphoric Acid
ST-Sodium Thiosulfate
I-Ice
U-Unpreserved
O-Other (Specify) ____

LAB USE ONLY [14] LAB ID	Sample Number [15]	Collection [16] Date	Collection [16] Time	Sample Description [17]	[18] Sample Type	[19] Matrix	[20] No. of Containers	Metals App. III + IV	EPA 6020 + EPA 7470 Hammond Huffaker Attached	EPA 6020 + EPA 7470 Cl, F, SO4 EPA 300	TDS SM2540C Radium 226 + 228 Ga Tech				LAB USE ONLY [26] Comments
102474007	GWC-9	3/23/16	14:52	Huffaker Rd. - GW	G	GW	3	X	X	X	X				
8	GWC-8	3/23/16	16:12	Huffaker Rd - GW	G	GW	3	X	X	X	X				
9	GWC-23	3/23/16	18:10	Huffaker Rd - GW	G	GW	3	X	X	X	X				
10	GWC-20	3/23/16	18:32	Huffaker Rd - GW	G	GW	3	X	X	X	X				

FOR CHAIN OF CUSTODY USE ONLY [27]

Relinquished by: [28] Seal #20160323-3 Date/Time 3/23/2016 20:05
Received by: [29] Date/Time
Relinquished by: Date/Time
Received by: Date/Time 3/24/16 @ 8:25

LAB USE ONLY: Sample Receipt Information [30]

3.2°C (GPEL-IR-3P), with ice, cooler in good condition, Seal, PH<2 Hach.

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client: Hammond
Workorder No.: 102474
Carrier: HAND

# of Samples: 10
Tracking No:

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	True	
Custody seals on cooler were intact	True	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	3.2
COC is present	True	
COC is filled out in ink and is legible	True	
COC is filled out with pertinent information	True	
The field sampler's name is on the COC	True	
Sample containers have legible labels	True	
Information on the sample label agrees with information on the COC	True	
Samples are received within holding times	True	
Containers are not broken or leaking	True	
Sample collection date/times are present	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preservation is checked	True	
Sample preservation is acceptable	True	
There is sufficient sample volume for all requested analyses	True	
Containers requiring zero headspace have no headspace or the bubble is < 6mm (1/4 inch)	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

Receiving Narrative:

No no-conformance notice.

Completed By: Jassim, Ayssar

Date: 03/24/2016

ENVIRONMENTAL LABORATORY

QUALITY CONTROL DATA

Workorders: 102383, 102467, 102465, 102474

QC Batch: 16893 Analysis Method: Ga Tech
QC Batch Method: Ga Tech
Associated Lab Samples: 102383001-003, 102467001-003, 102465001-006, 102474001-008

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.087E-01	1.0	
Radium-228	pCi/l	<7.882E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.787	5.193	108	70-130	
Radium-228	pCi/l	4.893	4.629	95	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	3.64	20	
Radium-228	pCi/l	12.3	20	

QUALITY CONTROL DATA

Workorder: 102474, 102469, 102480, 102483,

QC Batch: 16905 Analysis Method: Ga Tech
QC Batch Method: Ga Tech
Associated Lab Samples: 102474009-010, 102469001-006, 102480001-006, 102483001-006

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<4.554E-01	1.0	
Radium-228	pCi/l	<6.788E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.757	5.09	107	70-130	
Radium-228	pCi/l	4.899	5.33	109	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	8.0	20	
Radium-228	pCi/l	0	20	

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Sample #	Sample Description	Date Collected	Test Method
102485001	FB-02, Water	3/24/2016 12:15:00 PM	Ga Tech
102485002	GWC-19, Water	3/24/2016 11:06:00 AM	Ga Tech
102485003	GWC-18, Water	3/24/2016 11:08:00 AM	Ga Tech
102485004	GWC-21, Water	3/24/2016 11:40:00 AM	Ga Tech
102485005	FERB-01, Water	3/24/2016 1:00:00 PM	Ga Tech
102485006	FERB-02, Water	3/24/2016 1:30:00 PM	Ga Tech
102485007	FB-01, Water	3/24/2016 11:30:00 AM	Ga Tech

Certification

Data approved by Gary Smith

Georgia Power Company

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102485001
Collection Date	3/24/2016 12:15:00 PM
Sampling Media	Water
Station	FB-02

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.52E-01
Ra-228	Ga Tech	pCi/L			6.31E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102485002
Collection Date	3/24/2016 11:06:00 AM
Sampling Media	Water
Station	GWC-19

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.12E-01
Ra-228	Ga Tech	pCi/L			6.25E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102485003
Collection Date	3/24/2016 11:08:00 AM
Sampling Media	Water
Station	GWC-18

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.08E-01
Ra-228	Ga Tech	pCi/L			5.00E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102485004
Collection Date	3/24/2016 11:40:00 AM
Sampling Media	Water
Station	GWC-21

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.08E-01
Ra-228	Ga Tech	pCi/L			3.39E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102485005
Collection Date	3/24/2016 1:00:00 PM
Sampling Media	Water
Station	FERB-01

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.19E-01
Ra-228	Ga Tech	pCi/L			3.29E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102485006
Collection Date	3/24/2016 1:30:00 PM
Sampling Media	Water
Station	FERB-02

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			4.70E-01
Ra-228	Ga Tech	pCi/L			5.91E-01

Georgia Power Company
2480 Maner Road
Atlanta, Ga. 30339
(404) 799-2100 fax (404) 799-2141

Report To

Joju Abraham
Southern Company Services
Earth Sciences & Env Eng
42 Inverness Center Parkway
Birmingham, AL 35242

Location	Hammond
Sample Number	102485007
Collection Date	3/24/2016 11:30:00 AM
Sampling Media	Water
Station	FB-01

Nuclide	Method	Units	Activity Mean	95% CL	MDA
Ra-226	Ga Tech	pCi/L			5.51E-01
Ra-228	Ga Tech	pCi/L			4.61E-01

Georgia Power Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY — Work Order No. 102485
Reviewed By: AJ 3/28/16

12 Page 1 of 1

[X] 13 Standard Turnaround Time
[ ] # of Business Days (Rush) *(Must be cleared through Env. Lab. prior to shipment)*

Company: 1 Southern Company Services
Report To John Pugh
Address: 2 42 Inverness Center Parkway
Birmingham, AL 35242
Phone/Fax: 3 205.992.6781
Contact: 4 Joju Abraham
Project Location: 5 Plant Hammond Huttaker
Account Number: 6
Special Instructions: 7 CCR + Hammond State GW

Sample Shipment Date: 8 3/24/2016
Sampled By: 9 Will Virgo (WV) Myles Rogers (MR) Tracy Wardell (TW) Greg Jirak (GJ)
Print Name / Signature
Sample Received Date: 10 3/24/16 @ 15:30
Sample Received By: 11 [signature]
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 16 Date	Collection Time	Sample Description 17	18 Sample Type	19 Matrix	20 No. of Containers	Metals App. III + IV EPA 6020 + EPA 7470	Cl, F, SO4 EPA 300	TDS SM2540C	Hammond Huttaker State EPA 6020 + EPA 7470	Radium 226+228 Ga Tech			
PRESERVATIVE 21								N	I	N	N				
102485001	~~EB0~~ FB-02	3/24/2016	12:15	Field Blank Huttaker Rd	G	GW	3	X	X	X	X				
2	GWC-19	3/24/2016	11:06	Huttaker Rd. Groundwater	G	GW	3	X	X	X	X				
↓ 3	GWC-18	3/24/2016	11:08	Huttaker Rd. Groundwater	G	GW	3	X	X	X	X				

Sample Type Key: 23 G-Grab, C-Composite, O-Other
Matrix Key: 24 O-Oil, S-Solid, SL-Sludge, W-Wipe, LQ-Liquid, SW-Surface Water, GW-Ground Water, WW-Waste Water, DW-Drinking Water, OW-Other Water
Preservative Key: 25 H-Hydrochloric Acid, N-Nitric Acid, S-Sulfuric Acid, SH-Sodium Hydroxide, P-Phosphoric Acid, ST-Sodium Thiosulfate, I-Ice, U-Unpreserved, O-Other (Specify)
LAB USE ONLY 26 Comments

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: 28	Date/Time
Received by: 29	Date/Time
Relinquished by:	Date/Time
Received by:	Date/Time

LAB USE ONLY: Sample Receipt Information 30
4.8°C (GPEL-IR-3P), with ice, cooler in good condition, no seal
pH<2 Hand

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Georgia Power Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 102485
Reviewed By: AHJ 3/28/16

12 Page 1 of 1

[X] 13 Standard Turnaround Time
[ ] # of Business Days (Rush) *(Must be cleared through Env. Lab. prior to shipment)*

Company: 1 Southern Company Services
Report To John Pugh
Address: 2 42 Inverness Center Parkway
Birmingham AL 35242
Phone/Fax: 3 205.992.6781
Contact: 4 Joju Abraham
Project Location: 5 Plant Hammond - Huffaker
Account Number: 6
Special Instructions: 7 CCR + Hammond State GW

Sample Shipment Date: 8 3/24/2016
Sampled By: 9 Will Virgo (WV) Myles Rogers (MR)
Print Name
Tracy Wardell (TW) Greg Jirak (GJ)
Signature
Sample Received Date: 10 3/24/16 @ 15:30
Sample Received By: 11 [illegible signature]
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

Sample Type Key: 23 G-Grab, C-Composite, O-Other
Matrix Key: 24 O-Oil, S-Solid, SL-Sludge, W-Wipe, LQ-Liquid, SW-Surface Water, GW-Ground Water, WW-Waste Water, DW-Drinking Water, OW-Other Water
Preservative Key: 25 H-Hydrochloric Acid, N-Nitric Acid, S-Sulfuric Acid, SH-Sodium Hydroxide, P-Phosphoric Acid, ST-Sodium Thiosulfate, I-Ice, U-Unpreserved, O-Other (Specify)

LAB USE ONLY 14 LAB ID	Sample Number 15	Collection 16 Date	Collection 16 Time	Sample Description 17	Sample Type 18	Matrix 19	No. of Containers 20	Metals App. III & IV EPA6020+EPA7470	Cl, F, SO4 EPA300	TDS SM2540C	Hammond Huffaker State GW Attached TDS EPA6020+EPA7470	Radium 226+228 Ga Tech				LAB USE ONLY 26 Comments
Preservative 21								N	I	N	N					
102485004	GWC-21	3/24/2016	11:40	Huffaker Rd Groundwater	G	GW	3	X	X	X	X					
5	FERB-01	3/24/2016	13:00	Field Equipment Rinse Blank	G	OW	3	X	X	X	X					
6	FERB-02	3/24/2016	13:30	Field Equipment RinseBlank	G	OW	3	X	X	X	X					

FOR CHAIN OF CUSTODY USE ONLY 27

Relinquished by: 28	Date/Time
Received by: 29	Date/Time
Relinquished by:	Date/Time
Received by:	Date/Time

LAB USE ONLY: Sample Receipt Information 30
4.8°C (GPEL-IR-3P), with ice, cooler in good condition, no seal pH<2, Hand.

347156B

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Georgia Power Environmental Laboratory
2480 Maner Road, Bin 39110
Atlanta, Georgia 30339
Phone: (404) 799-2100
Company: 8-530-2100

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

LAB USE ONLY
Work Order No. 102485
Reviewed By: AMJ 3/28/16

[12] Page 1 of 1

[X] [13] Standard Turnaround Time
[ ] # of Business Days (Rush)
(Must be cleared through Env. Lab. prior to shipment)

Company: [1] Southern Company Services
Report To: John Pugh
Address: [2] 42 Inverness Center Parkway, Birmingham, AL 35242
Phone/Fax: [3] 205.992.6781
Contact: [4] Joju Abraham
Project Location: [5] Plant Hammond - Huffaker
Account Number: [6]
Special Instructions: [7] CCR+ Hammond State GW

Sample Shipment Date: [8] 3/24/2016
Sampled By: [9] Will Virgo (WV) Myles Rogers (MR) Tracy Wardell (TW) Greg Jirak (GJ)
Print Name / Signature
Sample Received Date: [10] 3/24/16 @ 15:30
Sample Received By: [11] [signature]
Authorization to subcontract analysis will be assumed acceptable by customer unless stated otherwise.

LAB USE ONLY [14] LAB ID	Sample Number [15]	Collection [16] Date	Collection Time	Sample Description [17]	Sample Type [18]	Matrix [19]	No. of Containers [20]	App III + IV Metals EPA6020+EPA7470	Hammond Huffaker State GW (Attached) EPA6020+EPA7470	Cl, F, SO4 EPA300	TDS SM2540C	Radium 226+228 (Ga Tech)				LAB USE ONLY [26] Comments
Preservative [21]								N	N	I	N					
102485007	FB-01	3/24/2016	11:30	Field Blank Huffaker Rd	G	DW	3									

Sample Type Key: [23] G-Grab, C-Composite, O-Other
Matrix Key: [24] O-Oil, S-Solid, SL-Sludge, W-Wipe, LQ-Liquid, SW-Surface Water, GW-Ground Water, WW-Waste Water, DW-Drinking Water, OW-Other Water
Preservative Key: [25] H-Hydrochloric Acid, N-Nitric Acid, S-Sulfuric Acid, SH-Sodium Hydroxide, P-Phosphoric Acid, ST-Sodium Thiosulfate, I-Ice, U-Unpreserved, O-Other (Specify)

FOR CHAIN OF CUSTODY USE ONLY [27]

Relinquished by: [28]	Date/Time
Received by: [29]	Date/Time
Relinquished by:	Date/Time
Received by:	Date/Time

LAB USE ONLY: Sample Receipt Information [30]
4.8°C (GPEL-IR-3P), with ice, cooler in good Condition, no seal
pH<2, Hand.

3471568

WHITE, CANARY & PINK—Laboratory GOLDENROD—Originator

(See Back For Instructions)

Sample Receipt Checklist

GEORGIA POWER
A SOUTHERN COMPANY

Client: Hammond **# of Samples:** 7
Workorder No.: 102485 **Tracking No:**
Carrier: HAND

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter	True	
Custody seals were present on cooler	False	
Custody seals were present on sample	False	
The cooler or samples do not appear to have been compromised or tampered with	True	
Samples were received on ice	True	
Cooler temperature is acceptable	True	
Cooler temperature is recorded	True	4.8
COC is present	True	
COC is filled out in ink and is legible	True	Mark-through present on sample number FB-02 that is not initialed and dated.
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:

Completed By: Sutton, Nick **Date: 03/24/2016**

ENVIRONMENTAL LABORATORY

QUALITY CONTROL DATA

Workorders: 102483, 102485, 102525, 102527, 102539

QC Batch: 16915 Analysis Method: Ga Tech
QC Batch Method: Ga Tech
Associated Lab Samples: 102483007, 102485001-007, 102525001-005, 102527001-006, 102539001

METHOD BLANK:

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Radium-226	pCi/l	<3.982E-01	1.0	
Radium-228	pCi/l	<6.692E-01	1.0	

Laboratory Control Sample:

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Radium-226	pCi/l	4.774	6.082	127	70-130	
Radium-228	pCi/l	4.874	5.066	104	70-130	

Laboratory Control Sample Duplicate:

Parameter	Units	RPD	Max RPD	Qualifiers
Radium-226	pCi/l	19.9	20	
Radium-228	pCi/l	7.4	20	

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

February 28, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond
Pace Project No.: 30209859

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on February 06, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Hammond
Pace Project No.: 30209859

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Plant Hammond
Pace Project No.: 30209859

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30209858001	**GWC-20**	Water	02/03/17 09:55	02/06/17 09:20
30209859002	**GWC-23**	Water	02/03/17 09:30	02/06/17 09:20

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Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Hammond
Pace Project No.: 30209859

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30209858001	**GWC-20**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30209859002	**GWC-23**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209859

Sample: GWC-20 **Lab ID: 30209858001** Collected: 02/03/17 09:55 Received: 02/06/17 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	**0.0492 ± 0.0802 (0.177) C:87% T:NA**	pCi/L	02/28/17 08:31	13982-63-3	
Radium-228	EPA 9320	**-0.194 ± 0.792 (1.84) C:60% T:72%**	pCi/L	02/28/17 12:50	15262-20-1	
Total Radium	Total Radium Calculation	**0.0492 ± 0.872 (2.02)**	pCi/L	02/28/17 16:45	7440-14-4	

Sample: GWC-23 **Lab ID: 30209859002** Collected: 02/03/17 09:30 Received: 02/06/17 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	**0.0253 ± 0.0674 (0.165) C:92% T:NA**	pCi/L	02/28/17 08:31	13982-63-3	
Radium-228	EPA 9320	**0.581 ± 0.633 (1.33) C:63% T:76%**	pCi/L	02/28/17 12:50	15262-20-1	
Total Radium	Total Radium Calculation	**0.606 ± 0.700 (1.50)**	pCi/L	02/28/17 16:45	7440-14-4	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209859

QC Batch: 249800 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30209858001, 30209859002

METHOD BLANK: 1229197 Matrix: Water
Associated Lab Samples: 30209858001, 30209859002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0967 ± 0.410 (0.983) C:64% T:73%	pCi/L	02/27/17 12:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond
Pace Project No.: 30209859

QC Batch: 248827 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30209858001, 30209859002

METHOD BLANK: 1223626 Matrix: Water
Associated Lab Samples: 30209858001, 30209859002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.111 ± 0.0941 (0.164) C:98% T:NA	pCi/L	02/28/17 08:33	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Plant Hammond
Pace Project No.: 30209859

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: AAB0154 Workorder Name: Plant Hammond Owner Received Date: Results Requested By: 2/28/2017

Report To:	Subcontract To:
Betsy McDaniel	Pace - Pittsburgh
Pace Analytical Atlanta	1638 Roseytown Road
110 Technology Parkway	Stes. 2,3,4
Peachtree Corners, GA 30092	Greensburg, PA 15601
Phone (770)-734-4200	Phone (724) 850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers HNO3	Requested Analysis Radium 226, 228, Total	LAB USE ONLY
1	GWC-20	G	2/3/2017 9:55	AAB0154-01	GW	2	X	001
2	GWC-23	G	2/3/2017 9:30	AAB0154-02	GW	2	X	002
3								
4								
5								
6								
7								
8								
9								
10								

WO#:30209859

30209859

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Karen Hin	2/6/17 0920	EQuIS deliverable required.
2					
3					

Cooler Temperature on Receipt N/A °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

30209859

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Invermess Center Parkway BIN B426
Birmingham, AL 35242
205-992-5417

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS		Metals Part 257 App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)						LAB ID NUMBER
CONTAINER TYPE:								P	P	P						
PRESERVATION:								3	7	3						
02/03/17	0955	GW		x	GWC-20	4		1	1	2						1
02/03/17	0930	GW		x	GWC-23	4		1	1	2						2

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H_2SO_4, ≤6°C
G - CLEAR GLASS	3 - HNO_3
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/ZnAc, ≤6°C
O - OTHER	6 - $Na_2S_2O_3$, ≤6°C
	7 - ≤6°C not frozen

*MATRIX CODES:

DW - DRINKING WATER	S - SOIL
WW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M. Burch MB M.Rogers MR
DATE/TIME: 2/3/17 0955

RELINQUISHED BY: Will Virgo (ERM)
DATE/TIME: 2/3/17 1215

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY / LAB: Madison 2/03/17 1215
DATE/TIME:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA
Ice: Yes No NA
Temperature: 6°C Min 6°C Max
Custody Seal: Intact Broken Not Present NA
# of Coolers:
Cooler ID:

FOR LAB USE ONLY
LAB #: 30209859
Entered into LIMS:
Tracking #:

2017 01 31 Hammond COCs.xlsx

Sample Condition Upon Receipt Pittsburgh 30209859

Pace Analytical

Client Name: Pace Atlanta Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 6812 5102 1174

Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Thermometer Used NA Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp NA °C Correction Factor: NA °C Final Temp: NA °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 2/6/17

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Organic Samples checked for dechlorination:			✓	13.
Filtered volume received for Dissolved tests			✓	14.
All containers have been checked for preservation. All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenolics	✓ ✓			15. pH <2 Initial when completed KH Date/time of preservation Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	16.
Trip Blank Present:			✓	17.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr		✓		Initial when completed: KH Date: 2-6-17

Client Notification/ Resolution:

Person Contacted: Date/Time: Contacted By:

Comments/ Resolution:

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	2/22/2017
Worklist:	34122
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1229197
MB concentration:	-0.097
M/B Counting Uncertainty:	0.410
MB MDC:	0.983
MB Numerical Performance Indicator:	-0.46
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS34122	LCSD34122
Count Date:	2/27/2017	
Spike I.D.:	16-027	
Spike Concentration (pCi/mL):	25.195	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.813	
Target Conc. (pCi/L, g, F):	6.198	
Uncertainty (Calculated):	0.446	
Result (pCi/L, g, F):	5.265	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.635	
Numerical Performance Indicator:	-2.36	
Percent Recovery:	84.94%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30209861001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30209861001DUP	
Sample Result (pCi/L, g, F):	0.525	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.476	
Sample Duplicate Result (pCi/L, g, F):	0.650	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.375	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.404	30209861001
Duplicate RPD:	21.25%	30209861001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

2/28/17

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	2/23/2017
Worklist:	33942
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1223626
MB concentration:	0.111
M/B Counting Uncertainty:	0.093
MB MDC:	0.164
MB Numerical Performance Indicator:	2.36
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS33942	LCSD33942
Count Date:	2/28/2017	
Spike I.D.:	17-003	
Spike Concentration (pCi/mL):	38.231	
Volume Used (mL):	0.25	
Aliquot Volume (L, g, F):	0.510	
Target Conc. (pCi/L, g, F):	18.750	
Uncertainty (Calculated):	0.882	
Result (pCi/L, g, F):	15.462	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.875	
Numerical Performance Indicator:	-5.19	
Percent Recovery:	82.46%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30209701001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30209701001DUP	
Sample Result (pCi/L, g, F):	0.083	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.090	
Sample Duplicate Result (pCi/L, g, F):	0.131	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.100	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.688	30209701001
Duplicate RPD:	44.17%	30209701001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

TAR_33942_W.xls

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AAL0587
December 28, 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:

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-6-20171214-01	AAL0587-01	Ground Water	12/14/17 13:30	12/15/17 12:40
GWC-8-20171214-01	AAL0587-02	Ground Water	12/14/17 14:20	12/15/17 12:40
GWC-20-20171214-01	AAL0587-03	Ground Water	12/14/17 14:40	12/15/17 12:40
Dup-1-20171214-01	AAL0587-04	Ground Water	12/14/17 00:00	12/15/17 12:40
Dup-2-20171214-01	AAL0587-05	Ground Water	12/14/17 00:00	12/15/17 12:40
FB-1-20171214-01	AAL0587-06	Water	12/14/17 15:15	12/15/17 12:40
FERB-1-20171214-01	AAL0587-07	Water	12/14/17 15:20	12/15/17 12:40

PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2017

Report No.: AAL0587
Client ID: GWC-6-20171214-01
Date/Time Sampled: 12/14/2017 1:30:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAL0587-01
Date/Time Received: 12/15/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	406	25	10	mg/L	SM 2540 C		1	12/19/17 14:40	12/19/17 14:40	7120473	JPT
Inorganic Anions											
Sulfate	130	10	0.17	mg/L	EPA 300.0		10	12/19/17 10:00	12/26/17 19:22	7120469	RLC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2017

Report No.: AAL0587
Client ID: GWC-8-20171214-01
Date/Time Sampled: 12/14/2017 2:20:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAL0587-02
Date/Time Received: 12/15/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	322	25	10	mg/L	SM 2540 C		1	12/19/17 14:40	12/19/17 14:40	7120473	JPT

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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2017

Report No.: AAL0587
Client ID: GWC-20-20171214-01
Date/Time Sampled: 12/14/2017 2:40:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAL0587-03
Date/Time Received: 12/15/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
Inorganic Anions											
Chloride	1.5	0.25	0.02	mg/L	EPA 300.0		1	12/19/17 10:00	12/19/17 15:36	7120469	RLC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2017

Report No.: AAL0587
Client ID: Dup-1-20171214-01
Date/Time Sampled: 12/14/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAL0587-04
Date/Time Received: 12/15/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	404	25	10	mg/L	SM 2540 C		1	12/19/17 14:40	12/19/17 14:40	7120473	JPT
Inorganic Anions											
Sulfate	120	10	0.17	mg/L	EPA 300.0		10	12/19/17 10:00	12/26/17 19:42	7120469	RLC

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2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2017

Report No.: AAL0587
Client ID: Dup-2-20171214-01
Date/Time Sampled: 12/14/2017 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: AAL0587-05
Date/Time Received: 12/15/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
Inorganic Anions											
Chloride	1.5	0.25	0.02	mg/L	EPA 300.0		1	12/19/17 10:00	12/19/17 16:17	7120469	RLC

PACE ANALYTICAL SERVICES, LLC.

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2017

Report No.: AAL0587
Client ID: FB-1-20171214-01
Date/Time Sampled: 12/14/2017 3:15:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAL0587-06
Date/Time Received: 12/15/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	53	25	10	mg/L	SM 2540 C		1	12/19/17 14:40	12/19/17 14:40	7120473	JPT
Inorganic Anions											
Chloride	0.02	0.25	0.02	mg/L	EPA 300.0	J	1	12/19/17 10:00	12/19/17 16:38	7120469	RLC
Sulfate	ND	1.0	0.02	mg/L	EPA 300.0		1	12/19/17 10:00	12/19/17 16:38	7120469	RLC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2017

Report No.: AAL0587
Client ID: FERB-1-20171214-01
Date/Time Sampled: 12/14/2017 3:20:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAL0587-07
Date/Time Received: 12/15/2017 12:40:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	83	25	10	mg/L	SM 2540 C		1	12/19/17 14:40	12/19/17 14:40	7120473	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.02	mg/L	EPA 300.0	J	1	12/19/17 10:00	12/19/17 16:59	7120469	RLC
Sulfate	ND	1.0	0.02	mg/L	EPA 300.0		1	12/19/17 10:00	12/19/17 16:59	7120469	RLC

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Attention: Mr. Joju Abraham

December 28, 2017

Report No.: AAL0587

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7120473 - SM 2540 C											
Blank (7120473-BLK1)						Prepared & Analyzed: 12/19/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7120473-BS1)						Prepared & Analyzed: 12/19/17					
Total Dissolved Solids	400	25	10	mg/L	400.00		100	84-108			
Duplicate (7120473-DUP1)		**Source: AAL0587-04**				Prepared & Analyzed: 12/19/17					
Total Dissolved Solids	388	25	10	mg/L		404			4	10	

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December 28, 2017

Report No.: AAL0587

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7120469 - EPA 300.0											
Blank (7120469-BLK1)						Prepared & Analyzed: 12/19/17					
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 (7120469-BS1)						Prepared & Analyzed: 12/19/17					
Chloride	10.6	0.25	0.02	mg/L	10.000		106	90-110			
Fluoride	10.3	0.30	0.03	mg/L	10.000		103	90-110			
Sulfate	10.2	1.0	0.02	mg/L	10.000		102	90-110			
Matrix Spike (7120469-MS1)		**Source: AAL0493-01**				Prepared & Analyzed: 12/19/17					
Chloride	28.7	0.25	0.02	mg/L	10.000	19.8	89	90-110			QM-02
Fluoride	10.6	0.30	0.03	mg/L	10.000	0.36	102	90-110			
Sulfate	19.2	1.0	0.02	mg/L	10.000	17.5	17	90-110			QM-02
Matrix Spike Dup (7120469-MSD1)		**Source: AAL0493-01**				Prepared & Analyzed: 12/19/17					
Chloride	28.8	0.25	0.02	mg/L	10.000	19.8	90	90-110	0.4	15	
Fluoride	10.6	0.30	0.03	mg/L	10.000	0.36	103	90-110	0.7	15	
Sulfate	19.1	1.0	0.02	mg/L	10.000	17.5	16	90-110	0.4	15	QM-02

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 28, 2017

Legend

Definition of Laboratory Terms

ND - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrososdiphenylamine. Pace is not NELAC certified for N-Nitrososdiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical®
Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
42 Inverness Center Parkway
Birmingham, AL 35242
205-992-5417

REPORT TO: Lauren Petty
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE:
PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Huffaker

PROJECT #: CCR D01-R1

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	EPA 6020; Boron	EPA 6020; Calcium	Chloride - EPA 300	Fluoride - EPA 300	Sulfate - EPA 300	TDS - SM 2540C	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:							P	P	P	P	P	P		
PRESERVATION:							3	3	7	7	7	7		
12/14/17	1330	GW	X	G	GWC-6-20171214-01	1					X	X	1	
12/14/17	1420	GW	X	G	GWC-8-20171214-01	1						X	2	
12/14/17	1440	GW	X	G	GWC-20-20171214-01	1			X				3	
12/14/17	–	GW	X	G	DUP-1-20171214-01	1					X	X	4	
12/14/17	–	GW	X	G	DUP-2-20171214-01	1			X				5	
~~12/14/17~~	~~1515~~	~~GW~~	~~X~~	~~G~~	~~FB-1-20171214-01~~	~~1~~			~~X~~		~~X~~	~~X~~	~~6~~	
12/14/17	1520	GW	X	G	FERB-1-20171214-01	1			X		X	X	7	

CONTAINER TYPE
P - PLASTIC
A - AMBER GLASS
G - CLEAR GLASS
V - VOA VIAL
S - STERILE
O - OTHER

PRESERVATION
1 - HCl, ≤6°C
2 - H_2SO_4, ≤6°C
3 - HNO_3
4 - NaOH, ≤6°C
5 - NaOH/ZnAc, ≤6°C
6 - $Na_2S_2O_3$, ≤6°C
7 - ≤6°C not frozen

*MATRIX CODES:
~~DW - DRINKING WATER~~ ~~S - SOIL~~
WW - WASTEWATER SL - SLUDGE
GW - GROUNDWATER SD - SOLID
SW - SURFACE WATER A - AIR
ST - STORM WATER L - LIQUID
W - WATER P - PRODUCT

SAMPLED BY AND TITLE: Markevias Thomas
DATE/TIME: 12-15-17 1240
RELINQUISHED BY: Markevias Thomas
DATE/TIME: 12-15-17 1240

RECEIVED BY:
DATE/TIME:
RELINQUISHED BY:
DATE/TIME:

FOR LAB USE ONLY
LAB #: AALO587
Entered into LIMS: MR

RECEIVED BY: LAB: MRalvman
DATE/TIME: 12/15/17 1240
SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS
Tracking #:

pH checked: Yes No NA
pH: Yes No NA
Temperature: Min 3.2 Max
Custody Seal: Intact Broken Not Present
# of Coolers
Cooler ID:

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # AAL0587

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other ____

Tracking #: ____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Optional: Proj. Due Date: Proj. Name:

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other ____

Thermometer Used: IR-4 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 3.2 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 12/15/17 MR

Comments:

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: GW				
All containers needing preservation have been checked.	☐Yes	☐No	☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased): ____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ____ Date/Time: ____

Comments/ Resolution: ____

Project Manager Review: ____ **Date:** ____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST **Printed: 12/18/2017 8:59:15AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 12/15/17 12:40

Work Order: AAL0587
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 7 **#Containers:** 7

Minimum Temp(C): 3.2 **Maximum Temp(C):** 3.2 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

PACE ANALYTICAL SERVICES, LLC.

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: ABA0483
January 22, 2018
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

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 22, 2018

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GWC-6-20180118-01	ABA0483-01	Ground Water	01/18/18 13:45	01/18/18 16:58
GWC-8-20180118-01	ABA0483-02	Ground Water	01/18/18 15:10	01/18/18 16:58
FB-1-20180118-01	ABA0483-03	Water	01/18/18 14:37	01/18/18 16:58
FERB-1-20180118-01	ABA0483-04	Water	01/18/18 14:40	01/18/18 16:58
DUP-1-20180118-01	ABA0483-05	Ground Water	01/18/18 00:00	01/18/18 16:58

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

January 22, 2018

Report No.: ABA0483
Client ID: GWC-6-20180118-01
Date/Time Sampled: 1/18/2018 1:45:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: ABA0483-01
Date/Time Received: 1/18/2018 4:58:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	404	25	10	mg/L	SM 2540 C		1	01/19/18 18:05	01/19/18 18:05	8010467	JPT
Inorganic Anions											
Sulfate	110	10	0.17	mg/L	EPA 300.0		10	01/21/18 15:45	01/21/18 23:00	8010488	RLC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 22, 2018

Report No.: ABA0483
Client ID: GWC-8-20180118-01
Date/Time Sampled: 1/18/2018 3:10:00PM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: ABA0483-02
Date/Time Received: 1/18/2018 4:58:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	322	25	10	mg/L	SM 2540 C		1	01/19/18 18:05	01/19/18 18:05	8010467	JPT

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 22, 2018

Report No.: ABA0483
Client ID: FB-1-20180118-01
Date/Time Sampled: 1/18/2018 2:37:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: ABA0483-03
Date/Time Received: 1/18/2018 4:58:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	86	25	10	mg/L	SM 2540 C		1	01/19/18 18:05	01/19/18 18:05	8010467	JPT
Inorganic Anions											
Sulfate	ND	1.0	0.02	mg/L	EPA 300.0		1	01/21/18 15:45	01/21/18 22:18	8010488	RLC

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Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 22, 2018

Report No.: ABA0483
Client ID: FERB-1-20180118-01
Date/Time Sampled: 1/18/2018 2:40:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: ABA0483-04
Date/Time Received: 1/18/2018 4:58:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	111	25	10	mg/L	SM 2540 C		1	01/19/18 18:05	01/19/18 18:05	8010467	JPT
Inorganic Anions											
Sulfate	ND	1.0	0.02	mg/L	EPA 300.0		1	01/21/18 15:45	01/21/18 22:39	8010488	RLC

PACE ANALYTICAL SERVICES, LLC.

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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 22, 2018

Report No.: ABA0483
Client ID: DUP-1-20180118-01
Date/Time Sampled: 1/18/2018 12:00:00AM
Matrix: Ground Water

Project: CCR Event
Lab Number ID: ABA0483-05
Date/Time Received: 1/18/2018 4:58:00PM

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	329	25	10	mg/L	SM 2540 C		1	01/19/18 18:05	01/19/18 18:05	8010467	JPT

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Attention: Mr. Joju Abraham

January 22, 2018

Report No.: ABA0483

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8010467 - SM 2540 C											
Blank (8010467-BLK1)						Prepared & Analyzed: 01/19/18					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (8010467-BS1)						Prepared & Analyzed: 01/19/18					
Total Dissolved Solids	428	25	10	mg/L	400.00		107	84-108			
Duplicate (8010467-DUP1)		**Source: ABA0483-01**				Prepared & Analyzed: 01/19/18					
Total Dissolved Solids	383	25	10	mg/L		404			5	10	

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January 22, 2018

Report No.: ABA0483

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8010488 - EPA 300.0											
Blank (8010488-BLK1)						Prepared & Analyzed: 01/21/18					
Chloride	0.06	0.25	0.02	mg/L							J
Fluoride	ND	0.30	0.03	mg/L							
Sulfate	ND	1.0	0.02	mg/L							
LCS (8010488-BS1)						Prepared & Analyzed: 01/21/18					
Chloride	10.0	0.25	0.02	mg/L	10.000		100	90-110			
Fluoride	9.87	0.30	0.03	mg/L	10.000		99	90-110			
Sulfate	9.91	1.0	0.02	mg/L	10.000		99	90-110			
Matrix Spike (8010488-MS1)			**Source: ABA0483-01RE1**			Prepared & Analyzed: 01/21/18					
Chloride	11.6	0.25	0.02	mg/L	10.000	2.58	91	90-110			
Fluoride	10.0	0.30	0.03	mg/L	10.000	ND	100	90-110			
Sulfate	101	1.0	0.02	mg/L	10.000	110	NR	90-110			QM-02
Matrix Spike Dup (8010488-MSD1)			**Source: ABA0483-01RE1**			Prepared & Analyzed: 01/21/18					
Chloride	11.7	0.25	0.02	mg/L	10.000	2.58	91	90-110	0.1	15	
Fluoride	10.0	0.30	0.03	mg/L	10.000	ND	100	90-110	0.3	15	
Sulfate	101	1.0	0.02	mg/L	10.000	110	NR	90-110	0.03	15	QM-02

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Attention: Mr. Joju Abraham

January 22, 2018

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® www.pacelabs.com

Pace Analytical Services, LLC - Atlanta GA
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201

PAGE: 1 OF 1

CLIENT NAME: Georgia Power Company

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 42 Inverness Center Parkway, Birmingham, AL 35242, 205-992-5917

REPORT TO: Lauren Petty | CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE: ~~48 TAT~~ NLT 1-22-18 | PO #: labvrch@southernco.com

PROJECT NAME/STATE: Plant Hammond - Hallwater

PROJECT #: CCR D01-R2

ANALYSIS REQUESTED — Container type: P, P; Preservation: 7, 7; Analyses: TDS - SM 2540C; Sulfate - EPA 300

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	TDS - SM 2540C	Sulfate - EPA 300	LAB ID NUMBER
1-18-18	1345	GW		✓	GWC-6-20180118-01	1	✓	✓	1
1-18-18	1510	GW		✓	GWC-8-20180118-01	1	✓		2
1-18-18	1437	W		✓	FB-1-20180118-01	1	✓	✓	3
1-18-18	1440	W		✓	FERB-1-20180118-01	1	✓	✓	4
1-18-18	—	GW		✓	DUP-1-20180118-01	1	✓		5

CONTAINER TYPE:
- P - PLASTIC
- A - AMBER GLASS
- G - CLEAR GLASS
- V - VOA VIAL
- S - STERILE
- O - OTHER

PRESERVATION:
- 1 - HCl, ≤6°C
- 2 - H_2SO_4, ≤6°C
- 3 - HNO_3
- 4 - NaOH, ≤6°C
- 5 - NaOH/ZnAc, ≤6°C
- 6 - $Na_2S_2O_3$, ≤6°C
- 7 - ≤6°C not frozen

*MATRIX CODES:
- DW - DRINKING WATER
- WW - WASTEWATER
- GW - GROUNDWATER
- SW - SURFACE WATER
- ST - STORM WATER
- W - WATER
- S - SOIL
- SL - SLUDGE
- SD - SOLID
- A - AIR
- L - LIQUID
- P - PRODUCT

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: Makenzie Ferris CL2 | DATE/TIME: 1-18-18 1658

RELINQUISHED BY: [signature] | DATE/TIME: 1-18-18 1658

RECEIVED BY: | DATE/TIME:

RELINQUISHED BY: | DATE/TIME:

RECEIVED BY LAB: Kurtis Hewitt | DATE/TIME: 1/18/18 1658

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER (CLIENT) OTHER FS

Checked: No (NA) | Iced: (Yes) No NA | Temperature: Min: 1.1°C Max: | Custody Seal: Intact Broken Not Present (N/A) | # of Coolers: | Cooler ID:

FOR LAB USE ONLY
LAB #: ABA0483
Entered into LIMS: CH
Tracking #:

Rev. 12/15/2016

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # ABA0493

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other _____

Optional
Proj. Due Date:
Proj. Name:

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used: THR082 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 1.1°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 1/18/18 /CAR

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☑Yes ☐No ☐N/A	7. 48 hr TAT 1/22/18
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: GW	☑Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☐Yes ☐No ☑N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☑N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed: _____ Lot # of added preservative: _____
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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LOG-IN CHECKLIST **Printed: 1/19/2018 9:19:10AM**

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 01/18/18 16:58

Work Order: ABA0483
Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 5 **#Containers:** 5

Minimum Temp(C): 1.1 **Maximum Temp(C):** 1.1 **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:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 07, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond Huffaker
Pace Project No.: 30195543

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195543001	**GWA-1**	Water	09/07/16 12:10	09/09/16 09:50
30195543002	**GWA-2**	Water	09/07/16 13:05	09/09/16 09:50
30195543003	**GWA-3**	Water	09/07/16 12:37	09/09/16 09:50
30195543004	**GWA-4**	Water	09/07/16 13:54	09/09/16 09:50
30195543005	**GWA-11**	Water	09/07/16 13:17	09/09/16 09:50
30195543006	**GWC-5**	Water	09/07/16 14:50	09/09/16 09:50
30195543007	**GWC-6**	Water	09/07/16 15:43	09/09/16 09:50
30195543008	**GWC-7**	Water	09/07/16 16:40	09/09/16 09:50
30195543009	**GWC-10**	Water	09/07/16 14:36	09/09/16 09:50
30195543010	**DUP-1**	Water	09/07/16 00:01	09/09/16 09:50

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(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195543001	**GWA-1**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195543002	**GWA-2**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195543003	**GWA-3**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195543004	**GWA-4**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195543005	**GWA-11**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195543006	**GWC-5**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195543007	**GWC-6**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195543008	**GWC-7**	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195543009	**GWC-10**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195543010	**DUP-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

Sample: GWA-1 **Lab ID: 30195543001** Collected: 09/07/16 12:10 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0182 ± 0.109 (0.321) C:84% T:NA**	pCi/L	09/28/16 13:37	13982-63-3	
Radium-228	EPA 9320	**0.224 ± 0.335 (0.721) C:76% T:86%**	pCi/L	09/27/16 16:16	15262-20-1	
Total Radium	Total Radium Calculation	**0.224 ± 0.444 (1.04)**	pCi/L	10/07/16 15:29	7440-14-4	

Sample: GWA-2 **Lab ID: 30195543002** Collected: 09/07/16 13:05 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.110 ± 0.138 (0.283) C:86% T:NA**	pCi/L	09/28/16 13:37	13982-63-3	
Radium-228	EPA 9320	**1.63 ± 0.604 (0.930) C:65% T:80%**	pCi/L	09/28/16 02:42	15262-20-1	
Total Radium	Total Radium Calculation	**1.74 ± 0.742 (1.21)**	pCi/L	10/07/16 15:29	7440-14-4	

Sample: GWA-3 **Lab ID: 30195543003** Collected: 09/07/16 12:37 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0754 ± 0.143 (0.329) C:93% T:NA**	pCi/L	09/28/16 13:38	13982-63-3	
Radium-228	EPA 9320	**0.693 ± 0.419 (0.777) C:72% T:84%**	pCi/L	09/28/16 02:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.768 ± 0.562 (1.11)**	pCi/L	10/07/16 15:29	7440-14-4	

Sample: GWA-4 **Lab ID: 30195543004** Collected: 09/07/16 13:54 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.255 ± 0.202 (0.342) C:73% T:NA**	pCi/L	09/28/16 13:38	13982-63-3	
Radium-228	EPA 9320	**0.619 ± 0.383 (0.711) C:72% T:86%**	pCi/L	09/28/16 02:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.874 ± 0.585 (1.05)**	pCi/L	10/07/16 15:29	7440-14-4	

Sample: GWA-11 **Lab ID: 30195543005** Collected: 09/07/16 13:17 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0755 ± 0.141 (0.322) C:80% T:NA**	pCi/L	09/28/16 13:38	13982-63-3	
Radium-228	EPA 9320	**0.660 ± 0.451 (0.859) C:67% T:83%**	pCi/L	09/28/16 02:42	15262-20-1	

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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

Sample: GWA-11 **Lab ID: 30195543005** Collected: 09/07/16 13:17 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.736 ± 0.592 (1.18)**	pCi/L	10/07/16 15:29	7440-14-4	

Sample: GWC-5 **Lab ID: 30195543006** Collected: 09/07/16 14:50 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.156 ± 0.169 (0.337) C:79% T:NA**	pCi/L	09/28/16 13:38	13982-63-3	
Radium-228	EPA 9320	**0.393 ± 0.437 (0.891) C:63% T:85%**	pCi/L	09/28/16 02:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.549 ± 0.606 (1.23)**	pCi/L	10/07/16 15:29	7440-14-4	

Sample: GWC-6 **Lab ID: 30195543007** Collected: 09/07/16 15:43 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0249 ± 0.134 (0.391) C:68% T:NA**	pCi/L	09/28/16 13:38	13982-63-3	
Radium-228	EPA 9320	**0.321 ± 0.349 (0.709) C:77% T:83%**	pCi/L	09/28/16 02:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.321 ± 0.483 (1.10)**	pCi/L	10/07/16 15:29	7440-14-4	

Sample: GWC-7 **Lab ID: 30195543008** Collected: 09/07/16 16:40 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.139 ± 0.143 (0.268) C:78% T:NA**	pCi/L	09/28/16 13:38	13982-63-3	
Radium-228	EPA 9320	**1.06 ± 0.436 (0.697) C:72% T:86%**	pCi/L	09/28/16 02:38	15262-20-1	
Total Radium	Total Radium Calculation	**1.20 ± 0.579 (0.965)**	pCi/L	10/07/16 15:29	7440-14-4	

Sample: GWC-10 **Lab ID: 30195543009** Collected: 09/07/16 14:36 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0691 ± 0.135 (0.311) C:94% T:NA**	pCi/L	09/30/16 08:09	13982-63-3	
Radium-228	EPA 9320	**0.732 ± 0.398 (0.711) C:78% T:83%**	pCi/L	09/28/16 16:14	15262-20-1	
Total Radium	Total Radium Calculation	**0.801 ± 0.533 (1.02)**	pCi/L	10/07/16 15:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

Sample: DUP-1 **Lab ID: 30195543010** Collected: 09/07/16 00:01 Received: 09/09/16 09:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0455 ± 0.128 (0.313) C:90% T:NA**	pCi/L	09/30/16 08:09	13982-63-3	
Radium-228	EPA 9320	**0.661 ± 0.364 (0.642) C:77% T:84%**	pCi/L	09/28/16 16:15	15262-20-1	
Total Radium	Total Radium Calculation	**0.707 ± 0.492 (0.955)**	pCi/L	10/07/16 15:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

QC Batch: 233308 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195543009, 30195543010

METHOD BLANK: 1143415 Matrix: Water
Associated Lab Samples: 30195543009, 30195543010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0884 ± 0.332 (0.753) C:77% T:77%	pCi/L	09/28/16 12:21	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

QC Batch: 232982 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195543001, 30195543002, 30195543003, 30195543004, 30195543005, 30195543006, 30195543007, 30195543008

METHOD BLANK: 1141808 Matrix: Water
Associated Lab Samples: 30195543001, 30195543002, 30195543003, 30195543004, 30195543005, 30195543006, 30195543007, 30195543008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0285 ± 0.105 (0.269) C:84% T:NA	pCi/L	09/28/16 11:40	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

QC Batch: 232988 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195543001, 30195543002, 30195543003, 30195543004, 30195543005, 30195543006, 30195543007, 30195543008

METHOD BLANK: 1141826 Matrix: Water
Associated Lab Samples: 30195543001, 30195543002, 30195543003, 30195543004, 30195543005, 30195543006, 30195543007, 30195543008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.265 ± 0.327 (0.690) C:78% T:84%	pCi/L	09/27/16 16:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

QC Batch: 233313 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195543009, 30195543010

METHOD BLANK: 1143427 Matrix: Water
Associated Lab Samples: 30195543009, 30195543010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0767 ± 0.109 (0.226) C:95% T:NA	pCi/L	09/30/16 08:08	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: Plant Hammond Huffaker
Pace Project No.: 30195543

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

WO#:30195543

30195543

CHAIN OF CUSTODY RECORD

Pace Analytical

Pace Analytical Services, Inc
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA [illegible]
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE ____ OF ____

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404 506 [illegible]

REPORT TO: Joju Abraham

CC: Maria Padilla, Sarah [illegible]

REQUESTED COMPLETION DATE:

PO #:

laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond Huffaker

PROJECT #: [illegible]

ANALYSIS REQUESTED: Metals [illegible] / EPA [illegible]; [illegible] / EPA 300.0 [illegible]; Radium 226 [illegible] / [illegible]; Metals [illegible] / EPA 6020 [illegible]

Collection DATE	Collection TIME	MATRIX CODE	GRAB	COMP	SAMPLE IDENTIFICATION	# OF CONTAINERS					
09/07/16	12:[illegible]	GW		X	GAA 1	4	1	1	[illegible]		
09/07/16	11:[illegible]	GW		X	[illegible] 2	3		1	1		
09/07/16	12:[illegible]	GW		X	[illegible] 3	3	1	1	1		
09/07/16	13:[illegible]	GW		X	[illegible] 4	3			1		
09/07/16	[illegible]	GW		X	GWA 11	4		1	1		
09/07/16	14:30	GW		X	GWC 5	3	1	1	1		
09/07/16	13:40	GW		X	GWC 6	3	1	1	1		
09/07/16	15:40	GW		X	GWC 7	3	1	1	1		
09/07/16	12:[illegible]	GW		X	GWC 10	3		1	1		
09/07/16		GW		X	DUP 1	3	1	1	1	1	

REMARKS/ADDITIONAL INFORMATION

SAMPLED BY AND TITLE: M. Thomas, W. Virgo, T. Vardan [signature]
DATE/TIME: 9-7-2016 / 17:00

RECEIVED BY:
DATE/TIME:

RELINQUISHED BY: Will Virgo (ERM) [signature]
DATE/TIME: 9/8/16 1055

RELINQUISHED BY:
DATE/TIME:

RECEIVED BY LAB: [signature]
DATE/TIME: 9-9-16 950

Temperature: Min: N/A Max:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

Custody Seal: Intact Broken Not Present

# of Coolers

Cooler ID:

FOR LAB USE ONLY

LAB #:

Entered into LIMS:
Tracking #:

20160907 Plant Hammond Huffaker COC Federal CCR.xlsx

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Georgia Power Project # 30195543

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 6812 5099 0058

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 9-9-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: GW	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests				12.
All containers needing preservation have been checked. All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenolics	X X			13. PH < 2 Initial when completed: ML Date/time of preservation: Lot # of added preservative:
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: ML Date: 9-9-16

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

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Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JLW
Date:	9/21/2016
Worklist:	31428
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1143415
MB concentration:	0.088
M/B Counting Uncertainty:	0.331
MB MDC:	0.753
MB Numerical Performance Indicator:	0.52
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31428	LCSD31428
Count Date:	9/28/2016	
Spike I.D.:	16-025	
Spike Concentration (pCi/mL):	25.557	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.807	
Target Conc. (pCi/L, g, F):	6.336	
Uncertainty (Calculated):	0.456	
Result (pCi/L, g, F):	7.193	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.821	
Numerical Performance Indicator:	1.79	
Percent Recovery:	113.54%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195540001	Enter Duplicate
Duplicate Sample I.D.	30195540001DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.597	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.376	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	1.139	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.496	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.706	30195540001
Duplicate RPD:	62.40%	30195540001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

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www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	9/28/2016
Worklist:	31430
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1143427
MB concentration:	0.077
M/B Counting Uncertainty:	0.108
MB MDC:	0.226
MB Numerical Performance Indicator:	1.39
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31430	LCSD31430
Count Date:	9/30/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.511	
Target Conc. (pCi/L, g, F):	8.751	
Uncertainty (Calculated):	0.412	
Result (pCi/L, g, F):	7.365	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.742	
Numerical Performance Indicator:	-3.20	
Percent Recovery:	84.17%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195376002	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195376002DUP	
Sample Result (pCi/L, g, F):	0.428	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.216	
Sample Duplicate Result (pCi/L, g, F):	0.117	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.181	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	2.170	30195376002
Duplicate RPD:	114.41%	30195376002DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

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Test:	Ra-226
Analyst:	WRR
Date:	9/26/2016
Worklist:	31363
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1141808
MB concentration:	0.028
M/B Counting Uncertainty:	0.105
MB MDC:	0.269
MB Numerical Performance Indicator:	0.53
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31363	LCSD31363
Count Date:	9/28/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.498	
Target Conc. (pCi/L, g, F):	8.972	
Uncertainty (Calculated):	0.422	
Result (pCi/L, g, F):	8.112	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.797	
Numerical Performance Indicator:	-1.87	
Percent Recovery:	90.41%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195375005	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195375005DUP	
Sample Result (pCi/L, g, F):	0.007	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.180	
Sample Duplicate Result (pCi/L, g, F):	-0.021	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.173	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	0.222	30195375005
Duplicate RPD:	-394.78%	30195375005DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

10/6/16

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	9/15/2016
Worklist:	31368
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1141826
MB concentration:	0.265
M/B Counting Uncertainty:	0.323
MB MDC:	0.690
MB Numerical Performance Indicator:	1.61
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31368	LCSD31368
Count Date:	9/27/2016	
Spike I.D.:	16-025	
Spike Concentration (pCi/mL):	25.564	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.800	
Target Conc. (pCi/L, g, F):	6.390	
Uncertainty (Calculated):	0.460	
Result (pCi/L, g, F):	6.293	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.734	
Numerical Performance Indicator:	-0.22	
Percent Recovery:	98.49%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195543001	Enter Duplicate
Duplicate Sample I.D.	30195543001DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.224	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.332	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.235	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.330	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.046	30195543001
Duplicate RPD:	4.75%	30195543001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 07, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Hammond Huffaker
Pace Project No.: 30195628

Dear Maria Padilla:
Enclosed are the analytical results for sample(s) received by the laboratory on September 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
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195628001	**GWC-8**	Water	09/08/16 12:50	09/12/16 09:25
30195628002	**GWC-9**	Water	09/08/16 14:35	09/12/16 09:25
30195628003	**GWC-18**	Water	09/08/16 16:00	09/12/16 09:25
30195628004	**GWC-19**	Water	09/08/16 10:40	09/12/16 09:25
30195628005	**GWC-20**	Water	09/08/16 12:20	09/12/16 09:25
30195628006	**GWC-21**	Water	09/08/16 15:25	09/12/16 09:25
30195628007	**GWC-22**	Water	09/08/16 13:42	09/12/16 09:25
30195628008	**GWC-23**	Water	09/08/16 14:45	09/12/16 09:25
30195628009	**FB-1**	Water	09/08/16 09:00	09/12/16 09:25
30195628010	**FB-2**	Water	09/08/16 12:50	09/12/16 09:25
30195628011	**FERB-1**	Water	09/08/16 09:10	09/12/16 09:25
30195628012	**FERB-2**	Water	09/08/16 16:45	09/12/16 09:25
30195628013	**DUP-2**	Water	09/08/16 00:01	09/12/16 09:25

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SAMPLE ANALYTE COUNT

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195628001	**GWC-8**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628002	**GWC-9**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628003	**GWC-18**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628004	**GWC-19**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628005	**GWC-20**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628006	**GWC-21**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628007	**GWC-22**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628008	**GWC-23**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628009	**FB-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628010	**FB-2**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628011	**FERB-1**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628012	**FERB-2**	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1
30195628013	**DUP-2**	EPA 9315	LAL	1

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(724)850-5600

SAMPLE ANALYTE COUNT

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 9320	JLW	1
		Total Radium Calculation	RMK	1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

Sample: GWC-8 **Lab ID: 30195628001** Collected: 09/08/16 12:50 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0114 ± 0.0939 (0.287) C:79% T:NA**	pCi/L	09/30/16 08:10	13982-63-3	
Radium-228	EPA 9320	**0.956 ± 0.485 (0.848) C:69% T:82%**	pCi/L	09/28/16 16:16	15262-20-1	
Total Radium	Total Radium Calculation	**0.956 ± 0.579 (1.14)**	pCi/L	10/07/16 16:29	7440-14-4	

Sample: GWC-9 **Lab ID: 30195628002** Collected: 09/08/16 14:35 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0250 ± 0.124 (0.363) C:79% T:NA**	pCi/L	09/30/16 08:11	13982-63-3	
Radium-228	EPA 9320	**0.485 ± 0.439 (0.891) C:65% T:89%**	pCi/L	09/30/16 12:31	15262-20-1	
Total Radium	Total Radium Calculation	**0.485 ± 0.563 (1.25)**	pCi/L	10/07/16 16:29	7440-14-4	

Sample: GWC-18 **Lab ID: 30195628003** Collected: 09/08/16 16:00 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.00897 ± 0.122 (0.325) C:92% T:NA**	pCi/L	09/30/16 08:39	13982-63-3	
Radium-228	EPA 9320	**0.349 ± 0.420 (0.886) C:61% T:88%**	pCi/L	09/30/16 16:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.358 ± 0.542 (1.21)**	pCi/L	10/07/16 16:29	7440-14-4	

Sample: GWC-19 **Lab ID: 30195628004** Collected: 09/08/16 10:40 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0505 ± 0.150 (0.365) C:91% T:NA**	pCi/L	09/30/16 08:11	13982-63-3	
Radium-228	EPA 9320	**0.666 ± 0.437 (0.830) C:63% T:93%**	pCi/L	09/30/16 16:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.717 ± 0.587 (1.20)**	pCi/L	10/07/16 16:29	7440-14-4	

Sample: GWC-20 **Lab ID: 30195628005** Collected: 09/08/16 12:20 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0474 ± 0.183 (0.452) C:84% T:NA**	pCi/L	09/30/16 08:11	13982-63-3	
Radium-228	EPA 9320	**0.203 ± 0.436 (0.964) C:66% T:83%**	pCi/L	09/30/16 16:38	15262-20-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

Sample: GWC-20 **Lab ID: 30195628005** Collected: 09/08/16 12:20 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	**0.250 ± 0.619 (1.42)**	pCi/L	10/07/16 16:29	7440-14-4	

Sample: GWC-21 **Lab ID: 30195628006** Collected: 09/08/16 15:25 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.100 ± 0.129 (0.265) C:90% T:NA**	pCi/L	09/30/16 08:33	13982-63-3	
Radium-228	EPA 9320	**0.769 ± 0.546 (1.06) C:58% T:84%**	pCi/L	09/30/16 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.869 ± 0.675 (1.33)**	pCi/L	10/07/16 16:29	7440-14-4	

Sample: GWC-22 **Lab ID: 30195628007** Collected: 09/08/16 13:42 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.00184 ± 0.0937 (0.267) C:93% T:NA**	pCi/L	09/30/16 08:33	13982-63-3	
Radium-228	EPA 9320	**0.657 ± 0.517 (1.03) C:58% T:87%**	pCi/L	09/30/16 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.659 ± 0.611 (1.30)**	pCi/L	10/07/16 16:29	7440-14-4	

Sample: GWC-23 **Lab ID: 30195628008** Collected: 09/08/16 14:45 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.138 ± 0.143 (0.272) C:91% T:NA**	pCi/L	09/30/16 08:33	13982-63-3	
Radium-228	EPA 9320	**0.233 ± 0.483 (1.07) C:59% T:78%**	pCi/L	09/30/16 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.371 ± 0.626 (1.34)**	pCi/L	10/07/16 16:29	7440-14-4	

Sample: FB-1 **Lab ID: 30195628009** Collected: 09/08/16 09:00 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0342 ± 0.107 (0.268) C:96% T:NA**	pCi/L	09/30/16 08:33	13982-63-3	
Radium-228	EPA 9320	**-0.0392 ± 0.349 (0.819) C:73% T:88%**	pCi/L	09/30/16 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.0342 ± 0.456 (1.09)**	pCi/L	10/07/16 15:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

Sample: FB-2 **Lab ID: 30195628010** Collected: 09/08/16 12:50 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0670 ± 0.110 (0.243) C:92% T:NA**	pCi/L	09/30/16 08:33	13982-63-3	
Radium-228	EPA 9320	**0.499 ± 0.410 (0.819) C:73% T:80%**	pCi/L	09/30/16 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.566 ± 0.520 (1.06)**	pCi/L	10/07/16 15:58	7440-14-4	

Sample: FERB-1 **Lab ID: 30195628011** Collected: 09/08/16 09:10 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.00732 ± 0.0932 (0.260) C:93% T:NA**	pCi/L	09/30/16 08:33	13982-63-3	
Radium-228	EPA 9320	**0.949 ± 0.525 (0.940) C:70% T:69%**	pCi/L	09/30/16 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.956 ± 0.618 (1.20)**	pCi/L	10/07/16 15:58	7440-14-4	

Sample: FERB-2 **Lab ID: 30195628012** Collected: 09/08/16 16:45 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**-0.0319 ± 0.135 (0.384) C:92% T:NA**	pCi/L	09/30/16 08:33	13982-63-3	
Radium-228	EPA 9320	**0.126 ± 0.378 (0.846) C:72% T:91%**	pCi/L	09/30/16 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.126 ± 0.513 (1.23)**	pCi/L	10/07/16 15:58	7440-14-4	

Sample: DUP-2 **Lab ID: 30195628013** Collected: 09/08/16 00:01 Received: 09/12/16 09:25 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0297 ± 0.103 (0.262) C:92% T:NA**	pCi/L	09/30/16 08:33	13982-63-3	
Radium-228	EPA 9320	**0.187 ± 0.353 (0.776) C:72% T:86%**	pCi/L	09/30/16 16:39	15262-20-1	
Total Radium	Total Radium Calculation	**0.217 ± 0.456 (1.04)**	pCi/L	10/07/16 15:58	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

QC Batch: 233308 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195628001

METHOD BLANK: 1143415 Matrix: Water
Associated Lab Samples: 30195628001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0884 ± 0.332 (0.753) C:77% T:77%	pCi/L	09/28/16 12:21	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

QC Batch: 233314 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195628002, 30195628003, 30195628004, 30195628005, 30195628006, 30195628007, 30195628008, 30195628009, 30195628010, 30195628011, 30195628012, 30195628013

METHOD BLANK: 1143428 Matrix: Water
Associated Lab Samples: 30195628002, 30195628003, 30195628004, 30195628005, 30195628006, 30195628007, 30195628008, 30195628009, 30195628010, 30195628011, 30195628012, 30195628013

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0373 ± 0.118 (0.296) C:84% T:NA	pCi/L	09/30/16 08:10	

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.

Pace Analytical Services, LLC
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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

QC Batch: 233309 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195628002, 30195628003, 30195628004, 30195628005, 30195628006, 30195628007, 30195628008, 30195628009, 30195628010, 30195628011, 30195628012, 30195628013

METHOD BLANK: 1143416 Matrix: Water
Associated Lab Samples: 30195628002, 30195628003, 30195628004, 30195628005, 30195628006, 30195628007, 30195628008, 30195628009, 30195628010, 30195628011, 30195628012, 30195628013

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.822 ± 0.468 (0.855) C:65% T:89%	pCi/L	09/30/16 12:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

QC Batch: 233313 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30195628001

METHOD BLANK: 1143427 Matrix: Water
Associated Lab Samples: 30195628001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0767 ± 0.109 (0.226) C:95% T:NA	pCi/L	09/30/16 08:08	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: Plant Hammond Huffaker
Pace Project No.: 30195628

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

CHAIN OF COUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185, Atlanta, GA 30308, 404-506-7239

REPORT TO: Joju Abraham | CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE: | PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond Huffaker

PROJECT #: CCR + State Permit

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470) — Container type: P, Preservation: 3	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C) — Container type: P, Preservation: 7	Radium 226 & 228 (SW-846 9315/9320) — Container type: P, Preservation: 3	Metals State Permit (EPA 6020) Ag, Cu, Ni, V, Zn — Container type: P, Preservation: 3	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
09/08/16	12:50	GW		X	GWC-8	3	1	1	1	1		001
09/08/16	14:35	GW		X	GWC-9	3	1	1	1	1		002
09/08/16	16:00	GW		X	GWC-18	3	1	1	1	1		003
09/08/16	10:40	GW		X	GWC-19	3	1	1	1	1		004
09/08/16	12:20	GW		X	GWC-20	3	1	1	1	1		005
09/08/16	15:25	GW		X	GWC-21	3	1	1	1	1		006
09/08/16	13:42	GW		X	GWC-22	4	1	1	2	1		007
09/08/16	14:45	GW		X	GWC-23	3	1	1	1	1		008
09/08/16	09:00	W		X	FB-1	3	1	1	1	1		009
09/08/16	12:50	W		X	FB-2	3	1	1	1	1		010
09/08/16	09:10	W		X	FERB-1	3	1	1	1	1		011
09/08/16	16:45	W		X	FERB-2	3	1	1	1	1		012

WO#:30195628
30195628

CONTAINER TYPE:
- P - PLASTIC
- A - AMBER GLASS
- G - CLEAR GLASS
- V - VOA VIAL
- S - STERILE
- O - OTHER

PRESERVATION:
- 1 - HCl, ≤6°C
- 2 - H_2SO_4, ≤6°C
- 3 - HNO_3
- 4 - NaOH, ≤6°C
- 5 - NaOH/ZnAc, ≤6°C
- 6 - $Na_2S_2O_3$, ≤6°C
- 7 - ≤6°C not frozen

*MATRIX CODES:
- DW - DRINKING WATER
- WW - WASTEWATER
- GW - GROUNDWATER
- SW - SURFACE WATER
- ST - STORM WATER
- W - WATER
- S - SOIL
- SL - SLUDGE
- SD - SOLID
- A - AIR
- L - LIQUID
- P - PRODUCT

SAMPLED BY AND TITLE: A. Shorditts M. Thomas T. Hardell | DATE/TIME: 9/8/2016 5:00:00 PM

RELINQUISHED BY: [signature] | DATE/TIME: 09/09/16 10:55

RECEIVED BY: Karen E. Hill | DATE/TIME: 9-12-16 0925

RELINQUISHED BY: | DATE/TIME:

FOR LAB USE ONLY — LAB #: | Entered Into LIMS: | Tracking #:

RECEIVED BY LAB: | DATE/TIME: | SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA | Ice: Yes No NA | Temperature: Min: Max: | Custody Seal: Intact Broken Not Present | # of Coolers | Cooler ID:

Copy of Plant Hammond Huffaker COC.xlsx

30195628

CHAIN OF CUSTODY RECORD

Pace Analytical®

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-506-7239

REPORT TO: Joju Abraham

CC: Maria Padilla, Heath McCorkle

REQUESTED COMPLETION DATE:

PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Hammond Huffaker

PROJECT #: CCR + State Permit

ANALYSIS REQUESTED

Collection DATE	Collection TIME	MATRIX CODE*	COMP	GRAB	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV (EPA 6020/7470)	Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	Metals State Permit (EPA 6020) Ag, Cu, Ni, V, Zn	LAB ID NUMBER	REMARKS/ADDITIONAL INFORMATION
CONTAINER TYPE:							P	P	P	P		
PRESERVATION:							3	7	3	3		
09/08/16	--	GW		X	DUP-2	3	1	1	1	1		013

CONTAINER TYPE:
- P - PLASTIC
- A - AMBER GLASS
- G - CLEAR GLASS
- V - VOA VIAL
- S - STERILE
- O - OTHER

PRESERVATION:
- 1 - HCl, ≤6°C
- 2 - H_2SO_4, ≤6°C
- 3 - HNO_3
- 4 - NaOH, ≤6°C
- 5 - NaOH/ZnAc, ≤6°C
- 6 - $Na_2S_2O_3$, ≤6°C
- 7 - ≤6°C not frozen

*MATRIX CODES:
- DW - DRINKING WATER
- WW - WASTEWATER
- GW - GROUNDWATER
- SW - SURFACE WATER
- ST - STORM WATER
- W - WATER
- S - SOIL
- SL - SLUDGE
- SD - SOLID
- A - AIR
- L - LIQUID
- P - PRODUCT

SAMPLED BY AND TITLE: A. Shoredits M. Thomas J. Waddell — DATE/TIME: 9/8/2016 5:00:00 PM

RELINQUISHED BY: [signature] — DATE/TIME: 09/09/16 10:55

RECEIVED BY: Karen E. Hin — DATE/TIME: 9-12-16 0925

RELINQUISHED BY: — DATE/TIME:

RECEIVED BY LAB: — DATE/TIME:

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER FS

pH checked: Yes No NA — Ice: Yes No NA — Temperature: Min: Max: — Custody Seal: Intact Broken Not Present — # of Coolers — Cooler ID:

FOR LAB USE ONLY
LAB #:
Entered into LIMS:
Tracking #:

Copy of Plant Hammond Huffaker COC.xlsx

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, Georgia Project # 30195628

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 6812 5099 0481

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: KH 9-12-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:		✓		8.
Sufficient Volume:	✓			9.
Correct Containers Used:	✓			10.
-Pace Containers Used:		✓		
Containers Intact:	✓			11.
Filtered volume received for Dissolved tests			✓	12.
All containers needing preservation have been checked.	✓			13.
All containers needing preservation are found to be in compliance with EPA recommendation.	✓			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: KH Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			✓	14.
Trip Blank Present:			✓	15.
Trip Blank Custody Seals Present			✓	
Rad Aqueous Samples Screened > 0.5 mrem/hr		✓		Initial when completed: KH Date: 9-12-16

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-228
Analyst:	JLW
Date:	9/21/2016
Worklist:	31428
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1143415
MB concentration:	0.088
M/B Counting Uncertainty:	0.331
MB MDC:	0.753
MB Numerical Performance Indicator:	0.52
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)? LCS31428	N LCSD31428
Count Date:	9/28/2016	
Spike I.D.:	16-025	
Spike Concentration (pCi/mL):	25.557	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.807	
Target Conc. (pCi/L, g, F):	6.336	
Uncertainty (Calculated):	0.456	
Result (pCi/L, g, F):	7.193	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.821	
Numerical Performance Indicator:	1.79	
Percent Recovery:	113.54%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	30195540001	
Duplicate Sample I.D.	30195540001DUP	
Sample Result (pCi/L, g, F):	0.597	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.376	
Sample Duplicate Result (pCi/L, g, F):	1.139	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.496	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.706	30195540001
Duplicate RPD:	62.40%	30195540001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	9/28/2016
Worklist:	31430
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1143427
MB concentration:	0.077
M/B Counting Uncertainty:	0.108
MB MDC:	0.226
MB Numerical Performance Indicator:	1.39
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31430	LCSD31430
Count Date:	9/30/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.511	
Target Conc. (pCi/L, g, F):	8.751	
Uncertainty (Calculated):	0.412	
Result (pCi/L, g, F):	7.365	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.742	
Numerical Performance Indicator:	-3.20	
Percent Recovery:	84.17%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195376002	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195376002DUP	
Sample Result (pCi/L, g, F):	0.428	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.216	
Sample Duplicate Result (pCi/L, g, F):	0.117	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.181	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	2.170	30195376002
Duplicate RPD:	114.41%	30195376002DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

LMC 10/4/16

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	9/28/2016
Worklist:	31431
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1143428
MB concentration:	0.037
M/B Counting Uncertainty:	0.118
MB MDC:	0.296
MB Numerical Performance Indicator:	0.62
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31431	LCSD31431
Count Date:	9/30/2016	
Spike I.D.:	16-026	
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.500	
Target Conc. (pCi/L, g, F):	8.927	
Uncertainty (Calculated):	0.420	
Result (pCi/L, g, F):	7.175	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.760	
Numerical Performance Indicator:	-3.96	
Percent Recovery:	80.37%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195628007	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195628007DUP	
Sample Result (pCi/L, g, F):	0.002	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.094	
Sample Duplicate Result (pCi/L, g, F):	0.118	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.136	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.386	30195628007
Duplicate RPD:	193.89%	30195628007DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JLW
Date:	9/21/2016
Worklist:	31429
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1143416
MB concentration:	0.822
M/B Counting Uncertainty:	0.445
MB MDC:	0.855
MB Numerical Performance Indicator:	3.62
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS31429	LCSD31429
Count Date:	9/30/2016	
Spike I.D.:	16-025	
Spike Concentration (pCi/mL):	25.540	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.819	
Target Conc. (pCi/L, g, F):	6.234	
Uncertainty (Calculated):	0.449	
Result (pCi/L, g, F):	5.409	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.841	
Numerical Performance Indicator:	-1.70	
Percent Recovery:	86.77%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Duplicate Sample Assessment		
Sample I.D.:	30195629003	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	30195629003DUP	
Sample Result (pCi/L, g, F):	0.050	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.374	
Sample Duplicate Result (pCi/L, g, F):	0.417	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.439	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.248	30195629003
Duplicate RPD:	157.34%	30195629003DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

LMM
CM 10/6/16

Product Name: Low-Flow System

Date: 2017-12-14 13:34:35

Project 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	Huffaker LF	Tubing Length	50 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	463072		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.3131711 L
Well Total Depth	42.60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	16.21 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:05:02	600.02	16.78	6.31	502.60	4.19	16.29	0.70	38.51
Last 5	13:10:02	900.02	16.38	6.40	509.21	3.75	16.27	0.72	27.82
Last 5	13:15:02	1200.02	16.19	6.44	504.08	3.87	16.27	0.73	19.91
Last 5	13:20:02	1499.88	15.97	6.47	507.93	3.01	16.27	0.70	13.17
Last 5	13:25:02	1799.88	15.97	6.49	503.38	2.36	16.27	0.70	7.45
Variance 0			-0.19	0.04	-5.13			0.00	-7.90
Variance 1			-0.22	0.03	3.85			-0.02	-6.74
Variance 2			-0.00	0.02	-4.55			-0.01	-5.72

Notes

1255 began purge at 200mL/min, 1305 reduce purge rate to 100mL/min, 1325 all parameters stabilized. 1330 sampled at 100mL/min

Grab Samples

GWC-6-20171214-01

Sampled at 1330

DUP-1-20171214-01

Sampled at 1330

Product Name: Low-Flow System

Date: 2017-12-14 14:25:59

Project Information:		Pump Information:	
Operator Name	H. Beaugh	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	32 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	22 ft

Well Information:		Pumping Information:	
Well ID	GWC-8	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2328295 L
Well Total Depth	27.10 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12.6 in
Depth to Water	13.61 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	13:58:23	1800.05	16.60	7.45	428.64	2.09	14.66	0.80	33.16
Last 5	14:03:23	2100.04	16.53	7.43	429.80	1.88	14.66	0.60	30.44
Last 5	14:08:23	2400.04	16.68	7.40	430.86	1.33	14.66	0.41	26.91
Last 5	14:13:23	2700.04	16.58	7.39	430.87	1.16	14.66	0.36	24.28
Last 5	14:18:23	3000.04	16.55	7.39	430.85	1.14	14.66	0.31	21.48
Variance 0			0.14	-0.03	1.06			-0.18	-3.52
Variance 1			-0.09	-0.01	0.01			-0.06	-2.63
Variance 2			-0.03	-0.00	-0.02			-0.05	-2.80

Notes

GWC-8-20171214-01 sample time: 1420. Purge rate: 100 mL/min. Purge time: 1328 to 1418.

Grab Samples

GWC-8-20171214-01

Sample time: 1420

Product Name: Low-Flow System

Date: 2018-01-18 15:11:16

Project Information:		Pump Information:	
Operator Name	H. Beaugh	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	40 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	553835		
Turbidity Make/Model	LaMotte 2020 we	Pump placement from TOC	22 ft

Well Information:		Pumping Information:	
Well ID	GWC-8	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	27.10 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	13.56 in
Depth to Water	13.28 ft	Total Volume Pumped	13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	14:43:21	6300.08	9.37	7.46	405.82	0.62	14.42	1.28	-33.75
Last 5	14:48:21	6600.09	9.32	7.46	403.53	0.54	14.40	1.05	-35.03
Last 5	14:53:21	6900.08	9.80	7.45	412.20	0.49	14.41	1.23	-36.37
Last 5	14:58:21	7200.07	10.82	7.45	402.33	1.02	14.41	1.40	-36.22
Last 5	15:03:26	7505.09	9.80	7.45	410.74	0.49	14.41	1.29	-36.50
Variance 0			0.48	-0.01	8.66			0.19	-1.34
Variance 1			1.02	0.00	-9.87			0.17	0.15
Variance 2			-1.02	-0.00	8.42			-0.11	-0.27

Notes

GWC-8 sample time: 1510. Purge rate: 100 mL/min. Purge time: 1258 to 1503.

Grab Samples

GWC-8-20180118-01

Sample time: 1510

DUP-1-20180118-01

Duplicate

Product Name: Low-Flow System

Date: 2017-12-14 14:50:57

Project 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	Huffaker LF	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	463072		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-20	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	34.06 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	4.26 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:15:35	300.03	14.72	6.89	374.21	1.23	4.87	0.76	-1.00
Last 5	14:20:35	600.02	14.99	6.78	371.42	1.28	5.03	0.66	-11.30
Last 5	14:25:35	900.02	15.05	6.77	371.27	1.12	5.12	0.63	-18.75
Last 5	14:30:35	1200.02	15.08	6.77	373.58	1.27	5.18	0.67	-24.79
Last 5	14:35:35	1500.02	15.08	6.78	375.95	1.58	5.20	0.72	-29.54
Variance 0			0.07	-0.01	-0.15			-0.03	-7.45
Variance 1			0.03	0.00	2.32			0.03	-6.04
Variance 2			-0.01	0.01	2.37			0.05	-4.75

Notes

1355 start purge at 200mL/min, 1435 all parameters stabilized, 1440 sampled at 200mL/min.

Grab Samples

GWC-20-20171214-01

Sampled at 1440

DUP-2-20171214-01

Sampled at 1440

Product Name: Low-Flow System

Date: 2018-01-18 13:43:35

Project 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	Huffaker	Tubing Length	50 ft
Latitude	0° 0' 0"		
Longitude	0° 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.3131711 L
Well Total Depth	42.60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	15.91 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 4		+/- 0.2	+/- 100
Last 5	13:20:01	1200.00	8.75	7.08	520.53	1.52	15.97	0.17	-44.96
Last 5	13:25:01	1499.99	8.94	7.09	518.59	0.97	15.97	0.15	-46.66
Last 5	13:30:01	1799.98	9.41	7.08	535.95	0.49	15.97	0.17	-51.67
Last 5	13:35:01	2099.98	9.23	7.09	516.99	0.37	15.97	0.14	-47.34
Last 5	13:40:01	2399.97	9.79	7.08	531.78	0.46	15.97	0.17	-52.95
Variance 0			0.47	-0.01	17.35			0.01	-5.01
Variance 1			-0.18	0.02	-18.95			-0.03	4.33
Variance 2			0.56	-0.01	14.78			0.03	-5.61

Notes

1300 begin purge at 100mL/min; 1340 all parameters stable. 1345 sampled at 100mL/min

Grab Samples

GWC-6-20180118-01

Sampled at 1345

Product Name: Low-Flow System

Date: 2016-03-22 16:03:51

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis
Company Name	EM Services	Tubing Type	poly
Project Name	Huffaker	Tubing Diameter	0.17 in
Site Name	GWA-1	Tubing Length	37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hack 2100Q	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	GWA-1	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2551467 L
Well Total Depth	ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	11.61 ft	Total Volume Pumped	0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1%	+/- 0.1%	+/- 3%	+/- 10		+/- 0.2%	+/- 20%
Last 5	15:25:48	5706.03	16.50	7.10	128.52	0.35	11.96	1.84	-65.08
Last 5	15:30:48	6006.03	16.45	7.07	127.78	0.28	11.96	1.34	-67.75
Last 5	15:35:48	6306.03	16.42	7.08	127.11	0.22	11.97	1.16	-69.40
Last 5	15:40:48	6606.03	16.42	7.07	125.76	0.28	11.97	1.11	-70.07
Last 5	15:45:48	6906.03	16.36	7.07	126.63	0.27	11.97	1.10	-70.01
Variance 0			-0.03	0.01	-0.68			-0.18	-1.65
Variance 1			-0.00	-0.01	-1.34			-0.06	-0.67
Variance 2			-0.06	0.00	0.86			-0.00	0.06

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-22 13:34:35

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	SoCo Plant Hammond	Tubing Diameter	0.17 in
Site Name	Plant Hammond -Huffaker Road	Tubing Length	15 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	0.1 mL/min
Well diameter	2 in	Total System Volume	0.1569514 L
Well Total Depth	25.62 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.32 in
Depth to Water	5.80 ft	Total Volume Pumped	3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 0
Last 5	13:02:18	900.02	16.02	7.20	402.53	1.42	6.15	0.21	-195.31
Last 5	13:07:19	1201.02	16.37	7.21	402.32	1.81	6.16	0.26	-193.61
Last 5	13:12:19	1501.02	16.44	7.20	401.12	2.17	6.16	0.23	-193.68
Last 5	13:17:19	1801.02	16.56	7.20	401.00	1.66	6.16	0.20	-195.78
Last 5	13:22:19	2101.02	16.83	7.19	399.62	2.19	6.16	0.21	-193.70
Variance 0			0.07	-0.01	-1.20			-0.02	-0.07
Variance 1			0.12	-0.00	-0.12			-0.04	-2.10
Variance 2			0.27	-0.01	-1.39			0.02	2.08

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-22 14:00:50

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker landfill	Tubing Diameter	in
Site Name	Default Site	Tubing Length	16 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWA-3	Final Pumping Rate	0.1 mL/min
Well diameter	2 in	Total System Volume	0.09 L
Well Total Depth	ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.17 in
Depth to Water	4.97 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 0
Last 5	13:34:54	600.03	19.34	7.13	693.64	6.28	5.13	0.34	23.99
Last 5	13:39:54	900.03	19.34	7.12	693.91	3.43	5.14	0.32	21.28
Last 5	13:44:54	1200.00	19.23	7.12	696.43	1.23	5.14	0.29	18.69
Last 5	13:49:54	1500.00	19.49	7.11	695.22	2.23	5.14	0.28	18.36
Last 5	13:54:54	1800.00	19.55	7.11	694.79	2.15	5.14	0.26	18.33
Variance 0			-0.11	-0.01	2.52			-0.03	-2.59
Variance 1			0.25	-0.00	-1.21			-0.01	-0.33
Variance 2			0.07	0.00	-0.43			-0.02	-0.03

Notes

Grayish yellow flakes in water but it doesn't affect turbidity

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-22 16:45:29

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker landfill	Tubing Diameter	in
Site Name	Default Site	Tubing Length	16 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWA-4	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.09 L
Well Total Depth	ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.11 in
Depth to Water	9.58 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 0
Last 5	16:19:47	1200.03	20.26	7.15	902.35	0.32	9.67	1.14	48.81
Last 5	16:24:47	1500.01	19.92	7.15	900.54	1.05	9.68	1.08	46.94
Last 5	16:29:47	1800.01	19.72	7.15	902.52	0.29	9.68	1.04	45.82
Last 5	16:34:49	2102.01	19.71	7.14	905.09	0.50	9.69	1.02	45.02
Last 5	16:39:49	2402.01	19.61	7.14	904.96	1.20	9.69	0.99	44.41
Variance 0			-0.20	-0.00	1.98			-0.04	-1.12
Variance 1			-0.01	-0.00	2.58			-0.01	-0.80
Variance 2			-0.10	-0.00	-0.13			-0.03	-0.61

Notes

Was stable 10min prior to final reading. Was waiting for bottles.

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-23 10:58:10

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker landfill	Tubing Diameter	in
Site Name	Default Site	Tubing Length	16 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWA-5	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.09 L
Well Total Depth	ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.03 in
Depth to Water	4.67 ft	Total Volume Pumped	4.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 0
Last 5	10:32:03	1500.03	16.20	7.11	595.77	7.91	4.70	0.54	61.25
Last 5	10:37:03	1800.03	16.13	7.10	596.55	3.87	4.70	0.51	55.45
Last 5	10:42:08	2105.03	16.20	7.10	597.06	6.85	4.70	0.50	56.56
Last 5	10:47:08	2405.03	16.20	7.10	597.32	4.39	4.70	0.48	54.60
Last 5	10:52:08	2705.03	16.22	7.10	596.47	3.08	4.70	0.46	52.05
Variance 0			0.07	-0.00	0.51			-0.01	1.11
Variance 1			0.00	-0.00	0.27			-0.02	-1.96
Variance 2			0.02	-0.00	-0.86			-0.02	-2.54

Notes

Grey flakes in water but it's not affecting turbidity

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-22 17:02:18

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	SoCo Plant Hammond	Tubing Diameter	0.17 in
Site Name	Plant Hammond -Huffaker Road	Tubing Length	30 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWA-11	Final Pumping Rate	0.1 mL/min
Well diameter	2 in	Total System Volume	0.2239027 L
Well Total Depth	35.91 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.92 in
Depth to Water	16.00 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	16:40:23	4803.03	17.31	6.99	190.33	5.86	16.41	0.92	15.57
Last 5	16:45:24	5104.02	17.21	7.00	190.92	5.73	16.41	1.02	16.91
Last 5	16:50:24	5404.03	16.87	7.03	193.15	5.40	16.41	1.05	17.59
Last 5	16:55:24	5704.03	17.05	6.99	192.23	5.04	16.41	1.00	17.76
Last 5	17:00:26	6006.02	16.88	7.00	193.65	4.87	16.41	1.04	17.98
Variance 0			-0.34	0.03	2.24			0.03	0.68
Variance 1			0.18	-0.04	-0.92			-0.05	0.17
Variance 2			-0.17	0.01	1.42			0.04	0.22

Notes

Grab Samples
GWA-11
Sample time: 1703

Product Name: Low-Flow System

Date: 2016-03-23 11:10:41

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	SoCo Plant Hammond	Tubing Diameter	0.17 in
Site Name	Plant Hammond -Huffaker Road	Tubing Length	37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	0.15 mL/min
Well diameter	2 in	Total System Volume	0.2551467 L
Well Total Depth	42.60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.2 in
Depth to Water	14.61 ft	Total Volume Pumped	5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 0
Last 5	10:48:13	902.03	16.79	7.31	454.37	7.10	14.71	0.49	-40.76
Last 5	10:53:13	1202.03	16.84	7.30	453.46	4.60	14.71	0.30	-44.73
Last 5	10:58:13	1502.03	16.96	7.29	455.63	4.18	14.71	0.26	-46.57
Last 5	11:03:13	1802.03	16.92	7.29	458.20	3.03	14.71	0.20	-47.56
Last 5	11:08:13	2102.03	16.96	7.29	458.05	2.94	14.71	0.15	-48.53
Variance 0			0.12	-0.01	2.17			-0.04	-1.84
Variance 1			-0.05	-0.00	2.57			-0.06	-0.99
Variance 2			0.05	-0.01	-0.15			-0.05	-0.97

Notes

Grab Samples
GWC-6
Sample Time: 11:11

Product Name: Low-Flow System

Date: 2016-03-23 13:07:04

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	SoCo Plant Hammond	Tubing Diameter	0.17 in
Site Name	Plant Hammond -Huffaker Road	Tubing Length	26 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWC-7	Final Pumping Rate	0.25 mL/min
Well diameter	2 in	Total System Volume	0.206049 L
Well Total Depth	31.82 ft	Calculated Sample Rate	300 sec
Screen Length	26 ft	Stabilization Drawdown	4 in
Depth to Water	13.74 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 0
Last 5	12:42:19	2401.03	16.80	6.37	438.27	6.69	13.97	0.08	22.50
Last 5	12:47:20	2702.07	17.12	6.38	436.93	7.17	13.97	0.08	22.54
Last 5	12:52:20	3002.07	17.09	6.38	439.59	8.94	13.97	0.07	23.21
Last 5	12:57:20	3302.03	17.21	6.35	434.71	5.94	13.91	0.08	25.85
Last 5	13:02:20	3602.03	17.30	6.36	438.60	3.83	13.91	0.09	24.90
Variance 0			-0.03	0.00	2.65			-0.01	0.68
Variance 1			0.11	-0.03	-4.87			0.01	2.64
Variance 2			0.09	0.01	3.89			0.01	-0.95

Notes

Purge rate decreased @ 1252 to 0.15 L/min to decrease NTUs

Grab Samples

GWC-7

Sample Time: 13:06

Product Name: Low-Flow System

Date: 2016-03-23 16:11:37

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	SoCo Plant Hammond	Tubing Diameter	0.17 in
Site Name	Plant Hammond -Huffaker Road	Tubing Length	22 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWC-8	Final Pumping Rate	0.1 mL/min
Well diameter	2 in	Total System Volume	0.1881953 L
Well Total Depth	27.10 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	14.88 in
Depth to Water	10.54 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 50
Last 5	15:49:14	1204.03	17.42	7.45	408.61	5.51	11.76	1.32	85.27
Last 5	15:54:14	1504.03	18.01	7.45	411.17	4.20	11.78	1.29	81.24
Last 5	15:59:14	1804.03	17.72	7.45	406.83	4.98	11.78	1.24	72.93
Last 5	16:04:14	2104.03	17.75	7.46	406.71	4.30	11.78	1.14	63.70
Last 5	16:09:14	2404.03	17.81	7.46	403.35	4.29	11.78	1.05	53.59
Variance 0			-0.29	0.00	-4.34			-0.06	-8.31
Variance 1			0.03	0.00	-0.12			-0.10	-9.23
Variance 2			0.07	0.00	-3.36			-0.10	-10.11

Notes

Grab Samples
GWC-8
Sample Time: 16:12

Product Name: Low-Flow System

Date: 2016-03-23 14:51:53

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker landfill	Tubing Diameter	in
Site Name	Default Site	Tubing Length	47 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWC-9	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.09 L
Well Total Depth	ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.16 in
Depth to Water	13.23 ft	Total Volume Pumped	5.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 0
Last 5	14:25:29	2403.00	18.66	7.23	263.96	2.07	13.39	0.55	-57.54
Last 5	14:30:30	2704.00	18.41	7.21	264.77	0.99	13.39	0.43	-57.52
Last 5	14:35:30	3004.00	18.41	7.20	275.53	1.79	13.39	0.40	-58.11
Last 5	14:40:30	3304.00	18.30	7.20	271.49	1.07	13.39	0.34	-59.00
Last 5	14:45:30	3604.00	18.38	7.20	269.88	1.51	13.39	0.32	-59.23
Variance 0			0.00	-0.01	10.76			-0.03	-0.59
Variance 1			-0.11	-0.01	-4.03			-0.05	-0.89
Variance 2			0.08	-0.00	-1.61			-0.02	-0.23

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-23 12:39:15

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis
Company Name	EM Services	Tubing Type	poly
Project Name	Huffaker Rd LF	Tubing Diameter	0.17 in
Site Name	GWC-10	Tubing Length	31 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-10	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2283661 L
Well Total Depth	33.99 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	13.6 ft	Total Volume Pumped	9.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1%	+/- 0.1%	+/- 5%	+/- 2%		+/- 0.2%	+/- 20%
Last 5	12:19:51	4877.03	16.73	7.56	306.35	5.36	13.63	0.31	-90.23
Last 5	12:22:51	5057.04	16.74	7.56	296.10	5.50	13.63	0.30	-90.91
Last 5	12:25:51	5237.03	16.69	7.56	307.84	4.18	13.63	0.37	-93.47
Last 5	12:28:51	5417.03	16.65	7.56	308.39	4.50	13.63	0.36	-93.32
Last 5	12:31:51	5597.03	16.64	7.56	294.28	4.32	13.63	0.36	-91.23
Variance 0			-0.05	0.00	11.74			0.07	-2.56
Variance 1			-0.05	0.00	0.55			-0.01	0.15
Variance 2			-0.01	-0.00	-14.10			-0.00	2.09

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-24 11:07:09

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	SoCo Plant Hammond	Tubing Diameter	0.17 in
Site Name	Plant Hammond -Huffaker Road	Tubing Length	51 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	51 ft

Well Information:		Pumping Information:	
Well ID	GWC-18	Final Pumping Rate	0.1 mL/min
Well diameter	2 in	Total System Volume	0.3176346 L
Well Total Depth	56.65 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	11.28 in
Depth to Water	12.33 ft	Total Volume Pumped	5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:45:08	2100.03	17.70	7.70	361.17	8.90	13.26	0.97	62.04
Last 5	10:50:08	2400.03	17.90	7.70	359.18	2.06	13.26	0.88	60.20
Last 5	10:55:08	2700.03	17.99	7.70	356.03	8.36	13.27	0.78	58.97
Last 5	11:00:08	3000.03	18.08	7.71	354.61	2.97	13.27	0.78	58.29
Last 5	11:05:09	3301.03	18.16	7.71	352.93	1.98	13.27	0.74	57.15
Variance 0			0.09	0.00	-3.15			-0.11	-1.22
Variance 1			0.09	0.00	-1.43			0.01	-0.68
Variance 2			0.09	0.00	-1.67			-0.04	-1.14

Notes

Grab Samples
GWC-18
Sample Time: 11:008

Product Name: Low-Flow System

Date: 2016-03-24 11:04:45

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker landfill	Tubing Diameter	in
Site Name	Default Site	Tubing Length	52 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWC-19	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.09 L
Well Total Depth	ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.27 in
Depth to Water	17.41 ft	Total Volume Pumped	6.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 0
Last 5	10:42:25	2400.01	17.49	7.69	353.32	0.97	17.68	1.00	58.76
Last 5	10:47:26	2701.01	17.60	7.70	362.05	1.46	17.68	0.95	58.22
Last 5	10:52:27	3002.01	17.75	7.69	368.53	1.15	17.68	0.99	57.50
Last 5	10:57:27	3302.01	17.77	7.68	370.79	1.35	17.68	1.08	53.34
Last 5	11:02:27	3602.01	17.90	7.69	377.80	2.27	17.68	0.99	44.46
Variance 0			0.15	-0.01	6.48			0.04	-0.71
Variance 1			0.02	-0.01	2.26			0.09	-4.16
Variance 2			0.13	0.00	7.01			-0.09	-8.88

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-23 18:31:00

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	SoCo Plant Hammond	Tubing Diameter	0.17 in
Site Name	Plant Hammond -Huffaker Road	Tubing Length	29 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-20	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2194393 L
Well Total Depth	34.06 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9.12 in
Depth to Water	3.11 ft	Total Volume Pumped	6.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	18:08:29	2706.03	16.80	7.52	351.24	5.36	3.87	0.70	10.68
Last 5	18:13:29	3006.03	16.87	7.53	348.69	7.77	3.87	0.61	-7.08
Last 5	18:18:29	3306.03	17.01	7.52	350.74	7.08	3.87	0.74	18.04
Last 5	18:23:29	3606.03	16.34	7.53	346.54	3.46	3.87	0.64	-20.73
Last 5	18:28:32	3909.02	16.29	7.55	347.59	3.10	3.87	0.35	-44.84
Variance 0			0.13	-0.01	2.05			0.14	25.12
Variance 1			-0.66	0.01	-4.20			-0.10	-38.77
Variance 2			-0.05	0.01	1.05			-0.29	-24.10

Notes

Grab Samples
GWC-20
Sample Time: 18:32

Product Name: Low-Flow System

Date: 2016-03-24 11:40:48

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis
Company Name	EM Services	Tubing Type	poly
Project Name	Huffaker Rd	Tubing Diameter	0.17 in
Site Name	GWC-21	Tubing Length	18 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	13 ft

Well Information:		Pumping Information:	
Well ID	GWC-21	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.1703416 L
Well Total Depth	17.93 ft	Calculated Sample Rate	180 sec
Screen Length	ft	Stabilization Drawdown	0 in
Depth to Water	5.12 ft	Total Volume Pumped	11.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 1		+/- 0.2	+/- 20
Last 5	11:26:55	3240.04	14.40	6.47	250.44	0.47	5.34	1.20	40.38
Last 5	11:29:55	3420.03	14.40	6.45	243.81	0.52	5.33	1.12	41.68
Last 5	11:32:55	3600.04	14.45	6.43	237.79	0.46	5.34	1.04	44.34
Last 5	11:35:55	3780.03	14.40	6.40	229.92	0.51	5.34	0.99	47.18
Last 5	11:38:55	3960.04	14.58	6.40	229.61	0.49	5.34	0.98	46.67
Variance 0			0.05	-0.02	-6.02			-0.08	2.66
Variance 1			-0.05	-0.02	-7.87			-0.05	2.83
Variance 2			0.18	-0.00	-0.32			-0.01	-0.51

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-23 14:51:47

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis
Company Name	EM Services	Tubing Type	poly
Project Name	Huffaker Rd	Tubing Diameter	0.17 in
Site Name	GWC-22	Tubing Length	42 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-22	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2774638 L
Well Total Depth	41.75 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	1.97 ft	Total Volume Pumped	0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1%	+/- 0.1%	+/- 5%	+/- 1%		+/- 0.2%	+/- 20%
Last 5	14:38:14	1805.02	17.77	7.73	336.24	6.05	2.72	1.05	-107.87
Last 5	14:41:16	1987.02	17.59	7.73	336.91	5.95	2.72	0.99	-108.60
Last 5	14:44:16	2167.02	17.58	7.73	336.73	4.80	2.72	0.94	-109.67
Last 5	14:47:16	2347.02	17.65	7.72	335.84	4.54	2.72	0.84	-115.71
Last 5	14:50:16	2527.01	17.67	7.72	335.41	4.10	2.72	0.83	-111.78
Variance 0			-0.01	-0.00	-0.18			-0.05	-1.07
Variance 1			0.07	-0.01	-0.89			-0.10	-6.03
Variance 2			0.02	-0.00	-0.44			-0.02	3.93

Notes

Disintegrated ant bodies in purge water

Grab Samples

Product Name: Low-Flow System

Date: 2016-03-23 18:14:26

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker landfill	Tubing Diameter	in
Site Name	Default Site	Tubing Length	37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	Hach 2100 Q	Pump placement from TOC	ft

Well Information:		Pumping Information:	
Well ID	GWC-23	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.09 L
Well Total Depth	42 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.24 in
Depth to Water	8.16 ft	Total Volume Pumped	2.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 0
Last 5	17:48:06	600.03	17.59	7.49	235.73	1.28	8.40	6.06	79.01
Last 5	17:53:06	900.03	17.36	7.49	230.04	0.95	8.40	6.07	78.22
Last 5	17:58:06	1200.03	17.10	7.49	230.05	0.50	8.40	6.08	77.54
Last 5	18:03:06	1500.02	17.35	7.48	230.01	0.18	8.40	5.94	77.48
Last 5	18:08:06	1800.03	17.28	7.48	229.79	0.12	8.40	5.93	77.24
Variance 0			-0.26	-0.00	0.00			0.01	-0.68
Variance 1			0.25	-0.01	-0.04			-0.14	-0.06
Variance 2			-0.07	0.01	-0.21			-0.01	-0.23

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-17 10:27:35

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Pegasus Alexis Peristaltic
Company Name	ERM	Tubing Type	poly
Project Name	Huffaker CCR	Tubing Diameter	0.17 in
Site Name	GPC-Plant Hammond-Huffaker	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	34.5 ft

Well Information:		Pumping Information:	
Well ID	GWA-1	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	39.53 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	3.6 in
Depth to Water	15.14 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:12:49	1620.02	15.75	6.99	151.16	0.25	15.43	1.86	53.86
Last 5	10:15:49	1800.02	15.75	6.99	150.82	0.12	15.43	1.79	48.25
Last 5	10:18:50	1980.07	15.76	6.98	149.92	0.43	15.43	1.56	38.12
Last 5	10:21:50	2160.06	15.79	6.98	150.11	0.21	15.43	1.72	38.62
Last 5	10:24:49	2340.02	15.80	7.00	149.17	0.13	15.44	1.69	39.85
Variance 0			0.00	-0.00	-0.90			-0.23	-10.13
Variance 1			0.03	-0.00	0.19			0.15	0.50
Variance 2			0.01	0.02	-0.94			-0.03	1.23

Notes

Grab Samples
GWA-1
10:27 sample time

Product Name: Low-Flow System

Date: 2016-05-17 10:15:18

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis Peristaltic V2.0
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Hammond - Huffaker	Tubing Diameter	0.17 in
Site Name	Default Site	Tubing Length	22.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	5.00 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	100 mL/min
Well diameter	2.00 in	Total System Volume	0.3081953 L
Well Total Depth	25.62 ft	Calculated Sample Rate	300 sec
Screen Length	10.0 ft	Stabilization Drawdown	2 in
Depth to Water	6.69 ft	Total Volume Pumped	3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	09:46:05	900.02	17.20	6.94	434.94	6.99	6.79	0.71	-101.75
Last 5	09:51:05	1200.02	17.19	6.94	436.18	0.73	6.79	0.55	-102.66
Last 5	09:56:05	1500.00	17.22	6.95	435.68	1.52	6.79	0.57	-101.43
Last 5	10:01:05	1800.01	17.20	6.94	435.51	2.71	6.81	0.42	-100.20
Last 5	10:06:05	2100.01	17.22	6.94	435.52	0.79	6.82	0.58	-96.87
Variance 0			0.03	0.01	-0.51			0.03	1.23
Variance 1			-0.02	-0.01	-0.17			-0.15	1.23
Variance 2			0.02	0.00	0.01			0.16	3.32

Notes

Grab Samples
GWA-2
Groundwater Sample

Product Name: Low-Flow System

Date: 2016-05-17 13:52:17

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis Peristaltic V2.0
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Hammond - Huffaker	Tubing Diameter	0.17 in
Site Name	Default Site	Tubing Length	16.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	5.00 ft

Well Information:		Pumping Information:	
Well ID	GWA-3	Final Pumping Rate	100 mL/min
Well diameter	2.00 in	Total System Volume	0.2814148 L
Well Total Depth	21.15 ft	Calculated Sample Rate	300 sec
Screen Length	10.0 ft	Stabilization Drawdown	2 in
Depth to Water	5.49 ft	Total Volume Pumped	3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	13:24:00	900.01	22.04	6.97	755.76	8.95	5.61	0.41	-60.31
Last 5	13:29:00	1200.07	21.66	6.97	751.61	6.87	5.64	0.33	-55.41
Last 5	13:34:00	1500.04	21.64	6.97	749.68	4.84	5.65	0.36	-52.98
Last 5	13:39:00	1800.01	21.51	6.97	752.11	4.75	5.65	0.38	-51.68
Last 5	13:44:00	2100.01	21.60	6.95	755.41	4.76	5.65	0.28	-48.89
Variance 0			-0.02	0.00	-1.93			0.04	2.43
Variance 1			-0.13	-0.00	2.43			0.02	1.31
Variance 2			0.09	-0.02	3.30			-0.10	2.79

Notes

TD measured after sampling, see field notes

Grab Samples

GWA-3

Groundwater Sample

Product Name: Low-Flow System

Date: 2016-05-17 11:33:16

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Hammond-Huffaker	Tubing Diameter	.17 in
Site Name	Plant Hammond	Tubing Length	18 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hanna	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWA-4	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.2903416 L
Well Total Depth	21.21 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.11 in
Depth to Water	11.45 ft	Total Volume Pumped	3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 10%	+/- 1000
Last 5	11:11:04	3300.02	17.37	6.80	848.79	2.90	11.56	0.26	37.36
Last 5	11:16:04	3600.02	17.36	6.76	833.44	--	--	0.21	39.30
Last 5	11:21:04	3900.02	17.23	6.72	823.11	--	--	0.19	41.63
Last 5	11:26:04	4200.02	17.17	6.69	814.15	--	--	0.17	42.29
Last 5	11:31:04	4500.02	17.14	6.67	802.97	2.57	11.56	0.16	44.21
Variance 0			-0.13	-0.03	-10.33			-0.02	2.33
Variance 1			-0.06	-0.03	-8.96			-0.02	0.66
Variance 2			-0.04	-0.03	-11.18			-0.01	1.93

Notes

Sample at 1135. D.O was stabilized by .2mg/l criteria.

Grab Samples

GWA-4

Obtained 3 turbidity readings under 5

Product Name: Low-Flow System

Date: 2016-05-17 12:53:28

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Pegasus Alexis Peristaltic
Company Name	ERM	Tubing Type	poly
Project Name	Huffaker CCR	Tubing Diameter	0.17 in
Site Name	GPC-Plant Hammond-Huffaker	Tubing Length	33 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWA-11	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.237293 L
Well Total Depth	35.91 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	4.8 in
Depth to Water	17.85 ft	Total Volume Pumped	3.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:39:32	720.02	17.32	6.77	198.30	0.21	18.25	0.24	14.97
Last 5	12:42:32	900.02	17.45	6.77	197.82	0.16	18.25	0.22	14.32
Last 5	12:45:32	1080.02	17.47	6.77	197.85	0.11	18.25	0.21	14.29
Last 5	12:48:32	1260.02	17.52	6.76	198.42	0.13	18.25	0.22	14.11
Last 5	12:51:32	1440.02	17.58	6.77	198.40	0.12	18.25	0.20	13.72
Variance 0			0.02	-0.00	0.04			-0.01	-0.04
Variance 1			0.05	-0.01	0.57			0.01	-0.18
Variance 2			0.07	0.01	-0.02			-0.02	-0.40

Notes

Occasional "slugs" of light brown/red material in purge water

Grab Samples

Product Name: Low-Flow System

Date: 2016-05-17 15:08:09

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Hammond-Huffaker	Tubing Diameter	.17 in
Site Name	Plant Hammond	Tubing Length	20 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hanna	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWC-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.2992685 L
Well Total Depth	21.24 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	5.45 ft	Total Volume Pumped	3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 1000
Last 5	14:46:33	3299.96	21.60	6.89	551.61	4.56	5.37	0.13	-58.24
Last 5	14:51:33	3599.96	21.99	6.89	548.02	4.64	5.37	0.13	-58.82
Last 5	14:56:33	3899.96	21.42	6.88	548.11	--	--	0.12	-56.45
Last 5	15:01:33	4199.96	21.15	6.88	546.04	--	--	0.13	-55.00
Last 5	15:06:33	4499.96	21.13	6.88	544.93	3.17	5.37	0.12	-54.95
Variance 0			-0.56	-0.01	0.09			-0.00	2.37
Variance 1			-0.27	0.00	-2.07			0.00	1.45
Variance 2			-0.02	-0.00	-1.11			-0.00	0.05

Notes

Initial WL was 5.31. Sampling at 1510

Grab Samples

GWC-5

Sampling at 1510

Product Name: Low-Flow System

Date: 2016-05-17 17:41:35

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis Peristaltic V2.0
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Hammond - Huffaker	Tubing Diameter	0.17 in
Site Name	Default Site	Tubing Length	37.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	15.0 ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	100 mL/min
Well diameter	2.00 in	Total System Volume	0.3751467 L
Well Total Depth	42.60 ft	Calculated Sample Rate	300 sec
Screen Length	10.0 ft	Stabilization Drawdown	0.5 in
Depth to Water	16.05 ft	Total Volume Pumped	8.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	17:15:38	4800.97	22.76	7.09	483.80	4.99	16.07	0.31	-77.84
Last 5	17:20:38	5100.97	22.09	7.09	484.43	0.00	16.07	0.29	-73.97
Last 5	17:25:38	5400.97	22.04	7.09	489.04	4.58	16.07	0.29	-74.23
Last 5	17:31:01	5723.97	21.46	7.09	485.85	4.99	16.07	0.28	-71.43
Last 5	17:36:05	6027.97	21.37	7.10	485.71	3.73	16.07	0.28	-74.63
Variance 0			-0.05	-0.00	4.62			-0.00	-0.26
Variance 1			-0.57	-0.00	-3.20			-0.01	2.79
Variance 2			-0.09	0.01	-0.14			-0.01	-3.19

Notes

Grab Samples
GWC-6
Groundwater Sample

Product Name: Low-Flow System

Date: 2016-05-18 11:19:22

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis Peristaltic V2.0
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Hammond - Huffaker	Tubing Diameter	0.17 in
Site Name	Default Site	Tubing Length	27.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	7.0 ft

Well Information:		Pumping Information:	
Well ID	GWC-7	Final Pumping Rate	100 mL/min
Well diameter	2.00 in	Total System Volume	0.3305124 L
Well Total Depth	31.82 ft	Calculated Sample Rate	300 sec
Screen Length	10.0 ft	Stabilization Drawdown	1 in
Depth to Water	15.76 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	10:53:47	7199.98	20.32	6.22	509.90	5.76	15.81	0.19	-3.11
Last 5	10:58:47	7499.98	20.22	6.22	509.03	4.28	15.82	0.19	-2.99
Last 5	11:03:47	7799.98	20.27	6.22	504.03	3.90	15.83	0.19	-2.53
Last 5	11:08:47	8099.98	20.04	6.21	504.38	4.78	15.82	0.19	-1.37
Last 5	11:13:47	8399.98	20.15	6.21	506.16	4.92	15.82	0.18	-2.42
Variance 0			0.05	-0.00	-5.00			0.00	0.46
Variance 1			-0.23	-0.01	0.35			0.00	1.16
Variance 2			0.11	0.00	1.78			-0.01	-1.05

Notes

TD measured after sampling

Grab Samples

GWC-7

Groundwater Sample

Product Name: Low-Flow System

Date: 2016-05-18 09:32:32

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Hammond-Huffaker	Tubing Diameter	.17 in
Site Name	Plant Hammond	Tubing Length	30 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hanna	Pump placement from TOC	22 ft

Well Information:		Pumping Information:	
Well ID	GWC-8	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3439027 L
Well Total Depth	27.10 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.66 in
Depth to Water	12.37 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 1000
Last 5	09:09:38	1200.02	17.23	7.34	383.89	6.15	14.80	0.36	-10.77
Last 5	09:14:38	1500.02	17.23	7.36	377.44	5.44	14.87	0.30	-24.12
Last 5	09:19:38	1800.02	17.36	7.38	376.16	4.38	14.95	0.31	-34.67
Last 5	09:24:38	2100.02	17.54	7.40	371.44	4.71	15.01	0.28	-39.61
Last 5	09:29:44	2406.02	17.99	7.40	371.20	4.36	15.03	0.23	-43.12
Variance 0			0.13	0.02	-1.28			0.01	-10.55
Variance 1			0.18	0.01	-4.72			-0.03	-4.94
Variance 2			0.45	0.00	-0.24			-0.05	-3.51

Notes

Parameters stable. Sample at 9:37

Grab Samples

GWC-8

3 turbidity readings under 5

Product Name: Low-Flow System

Date: 2016-05-19 13:19:51

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Hammond-Huffaker	Tubing Diameter	.17 in
Site Name	Plant Hammond	Tubing Length	30 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hanna	Pump placement from TOC	22 ft

Well Information:		Pumping Information:	
Well ID	GWC-8	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3439027 L
Well Total Depth	27.10 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	12.5 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2%	+/- 1000
Last 5	12:52:03	900.02	18.70	7.65	362.43	13.10	14.46	0.39	-15.35
Last 5	12:57:03	1200.02	18.74	7.66	358.14	7.17	14.79	0.35	-32.01
Last 5	13:02:03	1500.02	18.87	7.67	354.30	4.93	14.92	0.33	-42.18
Last 5	13:07:03	1800.02	18.73	7.67	355.36	3.26	15.04	0.29	-45.04
Last 5	13:17:16	2413.02	18.81	7.67	349.34	3.27	15.04	0.26	-46.46
Variance 0			0.12	0.01	-3.84			-0.02	-10.17
Variance 1			-0.14	0.01	1.05			-0.04	-2.86
Variance 2			0.08	0.00	-6.02			-0.03	-1.42

Notes

Re sample non preserved bottle. Sample at 1319

Grab Samples

GWC-8

Re sample non preserved bottle.

GROUNDWATER SAMPLING LOG SHEET

ERM

Client: GPC
Site: Huffaker
Well ID: GWC-9
Total Depth (ft)[1]: (52.05) 5260
Depth to Water (ft): 15.02
Well Diameter (in): 2
Well Volume (gal) = 0.041d²h: 6.07
Well Volume (L) = gal * 3.785: 22.97
d = well diameter (inches) h = length of water column (feet)

Project No.:
Location: Rome, GA
Pump Type/Model: Alexis Peristaltic
Tubing Material: LDPE
Pump Intake Depth (ft): 47
Start/Stop Purge Time: 1041 / 1156
Purge Rate (L/min)[2]: .200 L/min
Total Purge Volume (L): 15
Purge Method: ~~Low-Flow~~ Well Volume Other:
Sampling Method: Pump Discharge Other:

Sampling Date: 5/18/16
Sampler's Name: MR
Sample Collection Time: 1203
Sample Purge Rate (L/min)[3]: .200 L/min
Sample ID: GWC-9
Laboratory Analyses:

QA/QC Collected? No
QA/QC I.D.

Well Type: Flush Stick Up
Well Lock: Yes No
Well Bolted: Yes No Bolts Needed:
Well Cap Condition: Good Replace Other
Well Tag Present: Yes No Water in Vault: Yes No

All sample containers requiring chemical preservation properly preserved prior to demob from well? Yes No

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1046	19.80	312.30	0.29	7.09	-105.30	44.7	~200mL	1L	15.29	
1051	18.88	315.70	0.38	7.06	-100.9	43.6	↓	2L	15.32	
1056	18.66	314.0	0.39	7.01	-95.5	29.6		3L	15.32	
1101	18.44	313.90	0.37	6.99	-91.90	28.5		4L	15.32	
1106	18.52	312.0	0.47	6.98	-88.20	23.9		5L	15.33	
1111	18.48	311.80	0.52	6.98	-85.50	22.4		6L	15.33	
1141	18.40	310.80	0.17	6.97	-86.50	5.77		12L	15.35	
1146	18.49	309.60	0.17	6.96	-86.10	4.42		13L	15.36	
1151	18.57	307.80	0.17	6.96	-86.70	4.13		14L	15.36	
1156	18.92	307.20	0.18	6.96	-84.50	4.62		15L	15.34	
Parameters Stable, Well can be Sampled										
Stabilizing Criteria[4,5]		+/- 5%	0.2 mg/L or 10% whichever is greater (9)	+/- 0.2 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

Product Name: Low-Flow System

Date: 2016-05-19 15:09:41

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Hammond-Huffaker	Tubing Diameter	.17 in
Site Name	Plant Hammond	Tubing Length	60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hanna	Pump placement from TOC	47 ft

Well Information:		Pumping Information:	
Well ID	GWC-9	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4778054 L
Well Total Depth	52.60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3.9 in
Depth to Water	15.06 ft	Total Volume Pumped	14 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2%	+/- 1000
Last 5	14:47:14	3000.02	20.04	7.21	304.40	4.75	15.40	0.55	-83.78
Last 5	14:52:16	3302.02	19.10	7.20	306.15	4.27	15.40	0.42	-82.33
Last 5	14:57:16	3602.02	19.10	7.20	306.59	4.51	15.40	0.19	-83.00
Last 5	15:02:16	3902.02	19.39	7.20	308.08	4.29	15.40	0.20	-83.31
Last 5	15:07:16	4202.02	19.72	7.20	302.24	4.20	15.40	0.24	-83.52
Variance 0			-0.00	-0.00	0.44			-0.23	-0.67
Variance 1			0.29	0.00	1.49			0.01	-0.31
Variance 2			0.33	-0.00	-5.84			0.04	-0.22

Notes

Sampling at 1512

Grab Samples

GWC-9

Parameters stable

Product Name: Low-Flow System

Date: 2016-05-17 15:29:28

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Pegasus Alexis Peristaltic
Company Name	ERM	Tubing Type	poly
Project Name	Huffaker CCR	Tubing Diameter	0.17 in
Site Name	GPC-Plant Hammond-Huffaker	Tubing Length	31 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-10	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.2283661 L
Well Total Depth	33.99 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	0.72 in
Depth to Water	15.91 ft	Total Volume Pumped	8.625 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	15:13:58	3060.01	18.13	7.46	294.67	5.74	15.95	0.25	-41.15
Last 5	15:16:58	3240.01	18.12	7.46	293.94	7.76	15.95	0.26	-37.28
Last 5	15:19:58	3420.01	18.08	7.46	294.12	3.49	15.95	0.25	-42.31
Last 5	15:22:58	3600.01	18.12	7.45	293.25	3.80	15.95	0.25	-43.47
Last 5	15:25:58	3780.01	18.16	7.46	291.89	3.72	15.95	0.25	-39.78
Variance 0			-0.04	0.00	0.18			-0.01	-5.04
Variance 1			0.04	-0.00	-0.87			-0.00	-1.16
Variance 2			0.04	0.00	-1.36			0.01	3.69

Notes

Reduced flow from 150 to 125 to 100mL/min because of turbidity

Grab Samples

GWC-10

Sample time 1528

Product Name: Low-Flow System

Date: 2016-05-18 14:39:08

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Hammond-Huffaker	Tubing Diameter	.17 in
Site Name	Plant Hammond	Tubing Length	60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449102		
Turbidity Make/Model	Hanna	Pump placement from TOC	50 ft

Well Information:		Pumping Information:	
Well ID	GWC-18	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4778054 L
Well Total Depth	56.65 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	32.16 in
Depth to Water	13.20 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 1000
Last 5	14:14:48	1500.00	22.05	7.54	327.93	3.92	14.85	0.63	44.14
Last 5	14:19:48	1800.00	21.94	7.56	317.44	2.69	14.86	0.59	38.82
Last 5	14:24:52	2104.07	22.09	7.58	314.65	3.53	14.88	0.57	33.15
Last 5	14:29:52	2404.03	22.04	7.58	313.05	2.48	14.88	0.51	29.49
Last 5	14:34:52	2704.01	21.64	7.59	305.32	2.03	14.88	0.46	24.98
Variance 0			0.15	0.01	-2.79			-0.02	-5.66
Variance 1			-0.04	0.01	-1.60			-0.06	-3.66
Variance 2			-0.40	0.01	-7.73			-0.04	-4.51

Notes

Sample at 1442

Grab Samples

GWC-18

Parameters stable

Product Name: Low-Flow System

Date: 2016-05-19 14:44:35

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Pegasus Alexis Peristaltic
Company Name	ERM	Tubing Type	poly
Project Name	Huffaker CCR	Tubing Diameter	0.17 in
Site Name	GPC-Plant Hammond-Huffaker	Tubing Length	52 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	50.5 ft

Well Information:		Pumping Information:	
Well ID	GWC-18	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.322098 L
Well Total Depth	55.65 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	10.2 in
Depth to Water	13.21 ft	Total Volume Pumped	3.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:30:02	720.02	20.04	7.50	348.52	5.43	14.03	0.90	115.65
Last 5	14:33:02	900.02	20.04	7.51	347.06	1.82	14.04	0.85	113.32
Last 5	14:36:02	1080.02	19.99	7.52	343.77	2.33	14.05	0.75	111.09
Last 5	14:39:02	1260.02	19.99	7.53	342.35	0.50	14.05	0.70	105.57
Last 5	14:42:02	1440.02	20.04	7.53	340.56	2.28	14.06	0.67	102.09
Variance 0			-0.05	0.01	-3.28			-0.10	-2.24
Variance 1			-0.00	0.01	-1.43			-0.06	-5.52
Variance 2			0.05	0.00	-1.79			-0.03	-3.48

Notes

Resample. DUP-2 taken here.

Grab Samples

GWC-18

Sample time 1445

Product Name: Low-Flow System

Date: 2016-05-18 15:12:59

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis Peristaltic V2.0
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Hammond - Huffaker	Tubing Diameter	0.17 in
Site Name	Hammond	Tubing Length	52.0 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	6.00 ft

Well Information:		Pumping Information:	
Well ID	GWC-19	Final Pumping Rate	100 mL/min
Well diameter	2.00 in	Total System Volume	0.442098 L
Well Total Depth	57.21 ft	Calculated Sample Rate	300 sec
Screen Length	10.0 ft	Stabilization Drawdown	2.6 in
Depth to Water	18.95 ft	Total Volume Pumped	6.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 5		+/- 0.2	+/- 1000
Last 5	14:48:03	2699.99	22.92	7.50	424.44	3.10	19.14	1.12	-37.74
Last 5	14:53:03	2999.99	22.70	7.50	421.20	4.03	19.16	1.02	-46.67
Last 5	14:58:03	3299.99	22.53	7.50	419.78	2.24	19.16	0.93	-53.27
Last 5	15:03:03	3599.99	22.71	7.49	425.58	1.91	19.16	0.84	-56.24
Last 5	15:08:03	3899.99	22.60	7.49	425.01	1.71	19.16	0.83	-52.59
Variance 0			-0.17	-0.00	-1.42			-0.09	-6.60
Variance 1			0.19	-0.01	5.80			-0.09	-2.98
Variance 2			-0.12	-0.00	-0.57			-0.00	3.65

Notes

TD measured after sampling, see field notes

Grab Samples

GWC-19

Groundwater Sample

Product Name: Low-Flow System

Date: 2016-05-18 10:08:24

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Pegasus Alexis Peristaltic
Company Name	ERM	Tubing Type	poly
Project Name	Huffaker CCR	Tubing Diameter	0.17 in
Site Name	GPC-Plant Hammond-Huffaker	Tubing Length	31 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-20	Final Pumping Rate	150 mL/min
Well diameter	2 in	Total System Volume	0.2283661 L
Well Total Depth	34.06 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	8.4 in
Depth to Water	4.78 ft	Total Volume Pumped	5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:51:25	360.02	17.54	7.28	371.78	0.45	5.45	0.19	-174.31
Last 5	09:54:25	540.02	17.59	7.28	372.79	0.43	5.47	0.18	-177.16
Last 5	09:57:25	720.02	17.54	7.30	372.53	0.49	5.48	0.17	-179.07
Last 5	10:00:25	900.02	17.54	7.30	371.08	0.45	5.48	0.17	-180.37
Last 5	10:03:25	1080.02	17.49	7.32	368.54	0.40	5.48	0.17	-182.30
Variance 0			-0.05	0.02	-0.27			-0.01	-1.90
Variance 1			0.00	0.00	-1.45			-0.00	-1.30
Variance 2			-0.06	0.02	-2.54			0.00	-1.94

Notes

Ant bodies in purge water

Grab Samples

GWC-20

Sample time 10:06

Product Name: Low-Flow System

Date: 2016-05-18 11:52:05

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Pegasus Alexis Peristaltic
Company Name	ERM	Tubing Type	poly
Project Name	Huffaker CCR	Tubing Diameter	0.17 in
Site Name	GPC-Plant Hammond-Huffaker	Tubing Length	15 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	13 ft

Well Information:		Pumping Information:	
Well ID	GWC-21	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	0.1569514 L
Well Total Depth	17.93 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	3 in
Depth to Water	6.26 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:36:46	900.02	17.81	6.55	320.64	0.12	6.54	0.72	19.52
Last 5	11:39:46	1080.02	17.81	6.52	309.63	0.06	6.54	0.70	22.60
Last 5	11:42:46	1260.02	17.84	6.49	297.53	0.06	6.54	0.67	26.57
Last 5	11:45:46	1440.02	17.83	6.46	291.19	0.04	6.54	0.61	29.83
Last 5	11:48:46	1620.02	17.85	6.44	286.00	0.06	6.54	0.55	32.56
Variance 0			0.03	-0.03	-12.10			-0.04	3.97
Variance 1			-0.01	-0.04	-6.33			-0.05	3.26
Variance 2			0.02	-0.02	-5.19			-0.06	2.73

Notes

Grab Samples
GWC-22
Sample time 1151

Product Name: Low-Flow System

Date: 2016-05-18 13:42:48

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Pegasus Alexis Peristaltic
Company Name	ERM	Tubing Type	poly
Project Name	Huffaker CCR	Tubing Diameter	0.17 in
Site Name	GPC-Plant Hammond-Huffaker	Tubing Length	39 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-22	Final Pumping Rate	125 mL/min
Well diameter	2 in	Total System Volume	0.2640735 L
Well Total Depth	41.75 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	7.68 in
Depth to Water	3.36 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:28:35	1080.02	20.16	7.78	360.92	10.40	4.00	0.24	-89.51
Last 5	13:31:35	1260.02	20.21	7.77	361.23	5.68	4.00	0.24	-92.12
Last 5	13:34:35	1440.02	20.30	7.77	359.27	3.81	4.00	0.23	-96.64
Last 5	13:37:35	1620.02	20.25	7.77	358.28	3.09	4.00	0.22	-96.58
Last 5	13:40:35	1800.02	20.37	7.77	358.57	3.27	4.00	0.21	-92.98
Variance 0			0.10	-0.00	-1.96			-0.01	-4.52
Variance 1			-0.06	-0.00	-0.99			-0.01	0.06
Variance 2			0.12	0.00	0.28			-0.00	3.60

Notes

Ant bodies in purge water

Grab Samples

GWC-22

Sample time 1343

GROUNDWATER SAMPLING LOG SHEET

ERM

Client: GEORGIA POWER
Site: HUFFAKER
Well ID: GWC-23
Total Depth (ft)[1]: (49.72) 50.16
Depth to Water (ft): 12.69
Well Diameter (in): 2.00
Well Volume (gal) = 0.041d²h: 0.041(2)²x37.03 = 6.04
Well Volume (L) = gal * 3.785: 6.04x3.78 = 22.8
d = well diameter (inches) h = length of water column (feet)

Project No.: 0337351.01
Location: COOSA, GA
Pump Type/Model: ALEXES PERISTALTIC
Tubing Material: LDPE, Silicone
Pump Intake Depth (ft): ~45.0
Start/Stop Purge Time: 09:08 / 09:55
Purge Rate (L/min)[2]: 0.1
Total Purge Volume (L): 4.5
Purge Method: ~~Low-Flow~~ Well Volume Other:
Sampling Method: Pump Discharge ~~Other~~:

Sampling Date: 5-19-2016
Sampler's Name: A. SHOREDITS
Sample Collection Time: 13:15
Sample Purge Rate (L/min)[3]: 0.15
Sample ID: GWC-23
Laboratory Analyses: SEE COC.

QA/QC Collected? NO
QA/QC I.D. NA

Well Type: Flush ~~Stick Up~~
Well Lock: (Yes) No
Well Bolted: Yes (No) Bolts Needed:
Well Cap Condition: (Good) Replace Other
Well Tag Present: Yes (No) Water in Vault: Yes (No)

All sample containers requiring chemical preservation properly preserved prior to demob from well? (Yes) No

Time	Temp. (°C)	Spec. Cond. ~~(mS/cm)~~ (µS/cm)	DO ~~(%)~~ mg/L	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
09:13	18.15	335.1	6.29	7.15	-66.0	1.16	100	0.3	12.84	
09:18	17.09	352.9	0.86	7.23	-102.2	7.83	100	0.8	12.86	Increased purge rate slightly
09:23	16.97	354.6	0.44	7.26	-104.5	7.76	100	1.3	12.87	
09:28	17.05	355.1	0.37	7.25	-103.9	4.83	100	1.8	12.87	
09:33	17.03	354.7	0.32	7.26	-102.2	6.48	100	2.3	12.87	
✓ 09:38	17.07	355.0	0.32	7.26	-100.3	4.05	100	2.8	12.87	
✓ 09:43	17.20	352.0	0.33	7.26	-96.40	3.11	100	3.3	12.87	
✓ 09:48	17.19	350.1	0.34	7.25	-92.20	3.92	100	3.8	12.87	
✓ 09:53	17.23	348.7	0.46	7.24	-88.10	4.91	100	4.3	12.87	
PARAMETERS ARE STABLE AFTER THREE CONSECUTIVE READINGS,										
MORE THAN 3.0L HAVE BEEN PURGED, WELL CAN BE SAMPLED										
Stabilizing Criteria[4, 5]		+/- 5% ✓	0.2 mg/L or 10% whichever is greater[9] ✓	+/- 0.2 unit ✓		<5 NTUs ✓	>100 mL ✓ < 250 mL	>3L ✓	<0.33 ft ✓	

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

Product Name: Low-Flow System

Date: 2016-07-05 18:27:35

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Hammond GW sampling	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	42 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach	Pump placement from TOC	34 ft

Well Information:		Pumping Information:	
Well ID	GWA-1	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3974638 L
Well Total Depth	39.4 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3.4 in
Depth to Water	17.34 ft	Total Volume Pumped	3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	18:05:15	900.02	19.33	6.83	154.27	5.56	17.62	0.61	32.20
Last 5	18:10:15	1200.02	19.32	6.84	148.15	7.97	17.66	0.47	-34.45
Last 5	18:15:15	1500.02	19.23	6.87	144.84	3.45	17.66	0.42	-42.88
Last 5	18:20:15	1800.02	19.01	6.87	141.35	4.55	17.68	0.38	-44.17
Last 5	18:25:15	2100.02	19.06	6.88	140.15	4.31	17.68	0.34	-48.11
Variance 0			-0.10	0.03	-3.31			-0.06	-8.42
Variance 1			-0.22	0.00	-3.49			-0.04	-1.29
Variance 2			0.05	0.01	-1.20			-0.04	-3.94

Notes

All parameters stable

Grab Samples

GWA-1

Sample at 1829

Product Name: Low-Flow System

Date: 2016-07-05 19:10:48

Project Information:		Pump Information:	
Operator Name	Greg Jirak	Pump Model/Type	Alexis
Company Name	ERM	Tubing Type	poly
Project Name	Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	Hach	Pump placement from TOC	20 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.09 L
Well Total Depth	25.62 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	8.09 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	18:48:04	300.08	21.30	6.97	395.49	4.28	8.33	0.28	-95.55
Last 5	18:53:04	600.02	20.84	6.97	390.48	3.06	8.33	0.25	-101.86
Last 5	18:58:04	900.02	20.66	6.97	388.07	1.31	8.33	0.22	-103.96
Last 5	19:03:04	1200.02	20.31	6.98	387.02	2.28	8.33	0.20	-104.78
Last 5	19:08:04	1500.02	20.22	6.98	385.67	2.22	8.33	0.20	-105.04
Variance 0			-0.18	0.00	-2.41			-0.03	-2.09
Variance 1			-0.35	0.00	-1.05			-0.02	-0.83
Variance 2			-0.09	-0.00	-1.35			-0.00	-0.25

Notes

Sample collection time - 19:15

Grab Samples

GROUNDWATER SAMPLING LOG SHEET

Client: GPC
Site: HUFFAKER/HAMMOND
Well ID: GWA-3
Total Depth (ft)[1]: 21.64 btoc
Depth to Water (ft): 5.60 btoc
Well Diameter (in): 2.00
Well Volume (gal) = 0.041d²h: 0.041(2)²x15.55 = 2.53
Well Volume (L) = gal * 3.785: 2.53 x 3.785 = 9.59
d = well diameter (inches) h = length of water column (feet)

Project No.: 0337351
Location: HUFFAKER
Pump Type/Model: ALEXIS PERISTALTIC
Tubing Material: LDPE/Silicone
Pump Intake Depth (ft): 16.0
Start/Stop Purge Time: 18:40 / 19:17
Purge Rate (L/min)[2]: 0.17
Total Purge Volume (L): 5.55
Purge Method: (Low-Flow) Well Volume Other:
Sampling Method: (Pump Discharge) Other:

Sampling Date: 07-05-2016
Sampler's Name: A. SHOREDITS
Sample Collection Time: 19:20
Sample Purge Rate (L/min)[3]: 0.17
Sample ID: GWA-3
Laboratory Analyses: SEE COC
QA/QC Collected? NO
QA/QC I.D. N/A.

Well Type: Flush (Stick Up)
Well Lock: (Yes) No
Well Bolted: Yes No Bolts Needed:
Well Cap Condition: (Good) Replace Other
Well Tag Present: Yes No Water in Vault: Yes No

All sample containers requiring chemical preservation properly preserved prior to demob from well? (Yes) No

Time	Temp. (°C)	Spec. Cond. ~~(mS/cm)~~ (µS/cm)	DO ~~(mg/L)~~ (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
18:45	25.46	771.20	0.63	6.65	-55.40	6.32	150	0.75	5.77	
18:50	22.99	789.40	0.25	6.65	-50.80	6.56	170	1.60	5.85	
18:55	22.73	786.00	0.32	6.65	-48.20	3.48	170	2.45	5.86	
19:00	22.62	780.20	0.41	6.63	-44.20	4.03	170	3.30	5.87	
19:05	22.58	773.10	0.26	6.60	-39.90	1.73	170	4.15	5.87	
19:10	22.50	766.90	0.21	6.58	-35.50	4.43	170	5.00	5.88	
19:15	22.53	761.40	0.17	6.55	-31.70	1.22	170	5.85	5.87	
PARAMETERS ARE STABLE FOR THREE CONSECUTIVE READINGS,										
TURBIDITY < 5.0 NTU, WELL CAN BE SAMPLED										
Stabilizing Criteria[4,5]		+/- 5% ✓	0.2 mg/L or 10% whichever is greater (9) ✓	+/- 0.2 unit ✓		<5 NTUs ✓	>100 mL ✓ < 250 mL	>3L ✓	<0.33 ft ✓	

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

GROUNDWATER SAMPLING LOG SHEET

Client: GPC
Site: HAMMOND
Well ID: GWA-4
Total Depth (ft)[1]: 21.75 btoc
Depth to Water (ft): 12.34 btoc
Well Diameter (in): 2.00
Well Volume (gal) = 0.041d²h: 0.041(2)²x8.57 = 1.44
Well Volume (L) = gal * 3.785: 1.44x3.785 = 5.45
d = well diameter (inches) h = length of water column (feet)

Project No.: 0337351
Location: HUFFAKER
Pump Type/Model: ALEXIS PERISTALTIC
Tubing Material: LDPE, Silicone
Pump Intake Depth (ft): 16.0
Start/Stop Purge Time: 09:14 / 09:41
Purge Rate (L/min)[2]: 0.18
Total Purge Volume (L): ~4.5
Purge Method: (Low-Flow) Well Volume Other:
Sampling Method: (Pump Discharge) Other:

Sampling Date: 7-6-2016
Sampler's Name: A. SHOREDITS
Sample Collection Time: 09:45
Sample Purge Rate (L/min)[3]: 0.18
Sample ID: GWA-4
Laboratory Analyses: SEE COC

QA/QC Collected? NO
QA/QC I.D. N/A

Well Type: Flush (Stick Up)
Well Lock: (Yes) No
Well Bolted: Yes No Bolts Needed:
Well Cap Condition: (Good) Replace Other
Well Tag Present: Yes No Water in Vault: Yes No

All sample containers requiring chemical preservation properly preserved prior to demob from well? (Yes) No

Time	Temp. (°C)	Spec. Cond. ~~(mS/cm)~~ (µS/cm)	DO ~~mg/L (%)~~	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
09:19	22.32	952.90	0.42	6.61	125.60	3.22	180	0.9	12.42	Clear water.
09:24	21.79	982.50	0.28	6.59	107.50	1.54	180	1.8	12.43	
09:29	21.69	1021.90	0.25	6.52	97.90	1.43	180	2.7	12.44	
09:34	21.82	1020.50	0.23	6.53	94.40	1.75	180	3.6	12.45	
09:39	21.81	1011.90	0.22	6.53	91.70	1.09	180	4.5	12.46	
PARAMETERS ARE STABLE FOR THREE CONSECUTIVE READINGS,										
TURBIDITY <5.0 NTU, WELL CAN BE SAMPLED.										
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 ✓	

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

Product Name: Low-Flow System

Date: 2016-07-06 10:27:54

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis
Company Name	ERM	Tubing Type	LDPE
Project Name	Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	Hach	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWA-11	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	35.91 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	19.09 ft	Total Volume Pumped	0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.2	+/- 10
Last 5	10:24:58	180.02	17.49	6.71	168.17	12.00	19.33	0.13	2.31
Last 5									
Last 5									
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.00	0.00	0.00			0.00	0.00
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-06 11:03:26

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis
Company Name	ERM	Tubing Type	LDPE
Project Name	Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	Hach	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWA-11	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	35.91 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	2.88 in
Depth to Water	19.09 ft	Total Volume Pumped	16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 3%	+/- 10		+/- 0.2	+/- 10
Last 5	10:47:38	1080.02	17.45	6.71	170.31	4.51	19.33	0.11	2.75
Last 5	10:50:38	1260.02	17.60	6.64	170.50	4.21	19.33	0.11	3.45
Last 5	10:53:38	1440.00	17.54	6.63	176.58	4.06	19.33	0.10	4.43
Last 5	10:56:38	1620.00	17.55	6.65	179.11	4.20	19.33	0.10	4.65
Last 5	10:59:38	1800.00	17.47	6.64	176.38	4.43	19.33	0.10	4.80
Variance 0			-0.05	-0.01	6.09			-0.00	0.99
Variance 1			0.00	0.02	2.53			-0.00	0.22
Variance 2			-0.07	-0.01	-2.73			0.00	0.15

Notes

Safety vest kept swiping "finish low-flow", so initial data is missing. No other issues. Some "fluff" in discharged water. Started purge at 0955

Grab Samples

GWA-11

Sample time 11:05

GROUNDWATER SAMPLING LOG SHEET

ERM

Client:	GPC - Hammond	Project No.:	Sampling Date: 07/06/16
Site:	Huffaker Rd	Location: Rome, GA	Sampler's Name: Tracy Wardell
Well ID:	GWA-11	Pump Type/Model: Alexis Peristaltic	Sample Collection Time: 1105
Total Depth (ft)[1]:	(35.91) 36.90	Tubing Material: LDPE	Sample Purge Rate (L/min)[3]: 0.250
Depth to Water (ft):	19.09	Pump Intake Depth (ft): 31'	Sample ID: GWA-11
Well Diameter (in):	2	Start/Stop Purge Time: 0955 / 1059	Laboratory Analyses: Metals, Rads
Well Volume (gal) = 0.041d²h:	2.74	Purge Rate (L/min)[2]: 0.250	Cl, F, SO4, TDS
Well Volume (L) = gal * 3.785:	10.38	Total Purge Volume (L):	
d = well diameter (inches) h = length of water column (feet)		Purge Method: (Low-Flow) Well Volume Other:	QA/QC Collected? No
Well Type: Flush (Stick Up)		Sampling Method: (Pump Discharge) Other:	QA/QC I.D.
Well Lock: (Yes) No			
Well Bolted: Yes N/A No	Bolts Needed:		
Well Cap Condition: (Good) Replace	Other		All sample containers requiring chemical preservation properly preserved prior to demob from well? (Yes) No
Well Tag Present: (Yes) No	Water in Vault: Yes N/A No		

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1004	18.00	174.4	0.28	6.70	3.1	46.9	250	2.25	19.30	
1007	17.68	172.9	0.23	6.73	5.8	39.6	250	3.00	19.30	
1010										hit the button to stop...
1016	17.41	166.5	0.16	6.74	2.1	13.3	250	5.25	19.32	did it again !!!
1025	17.49	168.2	0.13	6.71	2.3	12.0	250	7.50	19.33	again --- !!!
~~1028~~							~~250~~	~~8.25~~	~~19.33~~	
1032	17.32	174.0	0.12	6.65	2.50	9.32	250	~~9.00~~ 9.75	19.33	
1035	17.32	174.9	0.12	6.67	3.10	7.05	250	~~9.75~~ 10.00	19.33	
1038	17.28	169.8	0.12	6.68	3.70	7.47	250	~~10.50~~ 10.75	19.33	
1041	17.41	175.4	0.11	6.64	3.10	5.55	250	11.50	19.33	orange "fluff" in discharge
1044	17.39	171.2	0.11	6.67	3.70	5.73	250	12.25	19.33	
1047	17.45	170.3	0.11	6.71	2.80	4.51	250	13.00	19.33	
1050	17.60	170.5	0.11	6.64	3.40	4.21	250	13.75	19.33	
1053	17.54	176.6	0.10	6.63	4.40	4.06	250	14.50	19.33	I haven't touched the iPad. Wondering if it's
1056	17.55	179.1	0.10	6.65	4.70	4.20	250	15.25	19.33	something in my vest?
1059	17.47	176.4	0.10	6.64	4.80	4.43	250	16.00	19.33	Yep, reflective stripe
Stabilizing Criteria[4,5]		+/- 5%	0.2 mg/L or 10% whichever is greater [9]	+/- 0.2 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

Product Name: Low-Flow System

Date: 2016-07-06 08:48:12

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Hammond GW sampling	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	25 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWC-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3215856 L
Well Total Depth	21.24 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.9 in
Depth to Water	5.56 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	08:26:28	300.03	22.27	6.66	507.16	3.80	5.63	0.33	-56.58
Last 5	08:31:28	600.01	21.82	6.71	513.08	3.53	5.63	0.24	-58.11
Last 5	08:36:28	900.00	21.67	6.73	509.14	3.33	5.65	0.24	-57.02
Last 5	08:41:28	1200.00	21.52	6.74	509.09	4.04	5.65	0.22	-56.04
Last 5	08:46:28	1500.00	21.55	6.75	509.53	4.20	5.65	0.23	-55.29
Variance 0			-0.15	0.01	-3.94			-0.00	1.09
Variance 1			-0.15	0.02	-0.05			-0.02	0.99
Variance 2			0.03	0.01	0.44			0.01	0.75

Notes

All parameters stable

Grab Samples

GWC-5

Sampling at 850

Product Name: Low-Flow System

Date: 2016-07-06 11:15:52

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Hammond GW sampling	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	48 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hach	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4242443 L
Well Total Depth	42.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.2 in
Depth to Water	17.15 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	10:52:24	900.01	21.37	7.04	410.24	44.10	17.26	0.19	-80.89
Last 5	10:57:24	1200.01	21.11	7.03	411.37	48.20	17.27	0.18	-79.80
Last 5	11:02:24	1500.01	20.92	7.03	412.06	36.70	17.27	0.16	-78.45
Last 5	11:07:24	1800.01	20.75	7.01	416.77	29.70	17.27	0.15	-76.97
Last 5	11:12:24	2100.01	20.96	7.01	420.32	24.80	17.27	0.15	-76.93
Variance 0			-0.18	-0.00	0.69			-0.01	1.35
Variance 1			-0.17	-0.01	4.71			-0.01	1.48
Variance 2			0.21	-0.01	3.54			-0.00	0.04

Notes

Standing down because of lightning. Will continue in 30 min

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-06 13:48:29

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Hammond GW sampling	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	48 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-6 continued	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4242443 L
Well Total Depth	42.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.1 in
Depth to Water	17.15 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	13:24:48	300.08	21.25	7.05	406.92	5.98	17.26	0.24	-68.88
Last 5	13:29:48	600.02	20.84	7.01	330.50	7.83	17.26	0.17	-71.78
Last 5	13:34:48	900.02	20.96	7.01	426.73	4.62	17.26	0.14	-73.65
Last 5	13:39:48	1200.02	21.06	7.00	430.57	4.36	17.26	0.13	-73.90
Last 5	13:44:48	1500.02	21.14	7.00	429.22	3.32	17.26	0.12	-73.49
Variance 0			0.12	-0.00	96.23			-0.02	-1.87
Variance 1			0.11	-0.01	3.84			-0.01	-0.24
Variance 2			0.08	-0.00	-1.34			-0.01	0.41

Notes

Continuing from prior purge

This was continued from a previous purge

Grab Samples

GWC-6

Sampling at 1350

Product Name: Low-Flow System

Date: 2016-07-06 15:34:42

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Hammond GW sampling	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	26 ft

Well Information:		Pumping Information:	
Well ID	GWC-7	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3662198 L
Well Total Depth	31.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.6 in
Depth to Water	17.32 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.2	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	15:12:33	1500.02	24.84	5.91	373.07	9.17	17.40	0.22	25.95
Last 5	15:17:33	1800.02	24.96	5.90	374.87	6.28	17.40	0.21	26.07
Last 5	15:22:33	2100.02	25.05	5.93	378.62	4.01	17.40	0.20	23.05
Last 5	15:27:33	2400.02	24.97	5.89	370.09	4.62	17.40	0.19	28.50
Last 5	15:32:33	2700.02	24.73	5.88	370.14	4.33	17.40	0.20	29.78
Variance 0			0.09	0.03	3.75			-0.01	-3.02
Variance 1			-0.09	-0.04	-8.53			-0.01	5.45
Variance 2			-0.24	-0.01	0.05			0.01	1.28

Notes

All parameters stable

Grab Samples

GWC-7

Sampling at 1537

GROUNDWATER SAMPLING LOG SHEET

ERM

Client: GPC
Site: HAMMOND / HUFFAKER
Well ID: GWC-8
Total Depth (ft)[1]: 27.57 btoc
Depth to Water (ft): 14.64
Well Diameter (in): 2.00
Well Volume (gal) = 0.041d²h: 0.041(2)² x 13.06 = 2.13
Well Volume (L) = gal * 3.785: 2.13 x 3.785 = 8.06
d = well diameter (inches) h = length of water column (feet)

Project No.: 0337351
Location: HUFFAKER
Pump Type/Model: ALEXIS PP2FSTALTFC
Tubing Material: LDPE, Silicone
Pump Intake Depth (ft): 16.0
Start/Stop Purge Time: 13:40 / 14:16
Purge Rate (L/min)[2]: 0.1
Total Purge Volume (L): 3.5
Purge Method: (Low-Flow) Well Volume Other:
Sampling Method: (Pump Discharge) Other:

Sampling Date: 7-8-2016
Sampler's Name: A. THOMAS / A. SHOREDITS
Sample Collection Time: 14:25
Sample Purge Rate (L/min)[3]: 0.1
Sample ID: GWC-8
Laboratory Analyses: SEE COC

QA/QC Collected? NO
QA/QC I.D. N/A

Well Type: Flush (Stick Up)
Well Lock: (Yes) No
Well Bolted: Yes No Bolts Needed:
Well Cap Condition: (Good) Replace Other
Well Tag Present: Yes No Water in Vault: Yes No

All sample containers requiring chemical preservation properly preserved prior to demob from well? (Yes) No

Time	Temp. (°C)	Spec. Cond. ~~(mS/cm)~~ (µS/cm)	DO ~~(%)~~ mg/L	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
13:45	22.80	398.10	0.97	7.37	90.10	0.93	100	0.5	14.54	Draw down pump rate is at lowest allowable rate
13:50	22.67	403.60	0.63	7.34	82.50	0.82	100	1.0	14.71	
13:55	22.67	399.20	0.48	7.34	78.80	0.48	100	1.5	14.77	
14:00	22.68	399.20	0.41	7.34	76.20	1.00	100	2.0	14.79	
14:05	22.90	395.60	0.35	7.34	40.50	0.99	100	2.5	14.82	
14:10	23.03	390.80	0.31	7.35	4.70	0.91	100	3.0	14.82	
14:15	23.12	384.50	.29	7.36	-.60	1.17	100	3.5	14.83	
PARAMETERS ARE STABLE FOR THREE CONSECUTIVE READINGS, TURBIDITY < 5.0 NTU, WELL CAN BE SAMPLED										
Stabilizing Criteria[4,5]		+/- 5% ✓	0.2 mg/L or 10% whichever is greater (9) ✓	+/- 0.2 unit ✓		<5 NTUs ✓	>100 mL ✓ < 250 mL	>3L ✓	✗ <0.33 ft	

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

GROUND WATER SAMPLING LOG SHEET

ERM

Client: GPC | Project No.: 0337351 | Sampling Date: 7/6/16

Site/Location: Hammond - Hokkaido | Sampler's Name: M. Thomas

Well ID: GWC-9 | Pump Type/Model: Alexis Peristaltic | Sample Collection Time: 16:35

Total Depth (ft)[1]: 52.45 | Tubing Material: Silicon | Sample Purge Rate (L/min)[3]: .13

Depth to Water (ft): 16.72 | Pump Intake Depth (ft): 47 ft | Sample ID: GWC-9

Well Diameter (in): 2 inch | Start/Stop Purge Time: ~~17:57~~ / 15:57 / 16:32 | QA/QC Collected?

Well Volume (gal) = 0.041d²h: 5.76 (21.8L) | Purge Rate (L/min)[2]: .13 | QA/QC I.D.

d = well diameter (inches) h = length of water column (feet) | Total Purge Volume (L): 3.75 | Laboratory Analyses:

Well Condition: Partly Cloudy | Sampling Method (check all that apply): ☐ soda straw (VOCs) ☐ vacuum jug (SVOCs) ☐ pump head discharge (Inorganics including cyanide)

☐ Bladder pump = pump discharge (all analytes) ☐ Bailer (only used if necessary)

Time	Temp. (°C)	Spec. Cond. (mS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Volume (L)	H_2O Depth (ft)	Notes (Water clarity, odor, purge rate, issues with pump/well/weather/etc.)
16:02	27.20	305.00	2.87	6.94	~~112.5~~ 112.5	2.94	.5	16.85	0.1 L/min
16:07	24.69	311.10	2.23	6.91	108.40	2.52	1.15	16.89	0.13L/min
16:12	23.92	315.50	2.29	6.90	106.50	2.44	1.8	16.86	0.13L/min
16:17	23.99	313.90	2.33	6.90	105.20	2.24	2.45	16.87	0.13L/min
16:22	23.93	314.20	2.28	6.90	100.50	1.22	3.10	16.87	0.13L/min
16:27	24.01	312.60	2.25	6.89	102.00	2.39	3.75	16.87	0.13L/min
Stabilizing Criteria[5]		+/- 3%		+/- 0.1 unit		+/- 10% or <10 NTUs	(see note below)[4]	(see note below)[6]	

(1) - Do not measure depth to bottom of well until after purging and sampling to reduce resuspending fines that may be resting on the well bottom.
(2) - Purge rate to be 0.5 lpm or less.
(3) - Sampling rate to be 0.25 lpm or less.
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor DTW every 5 min. Well drawdown to be 0.3 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.3 ft.
(7) - DO is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.
(8) - ORP is not a stabilization criterion for the "Groundwater sampling" SESD Standard Operating Procedure.

Product Name: Low-Flow System

Date: 2016-07-06 13:37:26

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	32 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	LaMotte	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-10	Final Pumping Rate	175 mL/min
Well diameter	2 in	Total System Volume	0.2328295 L
Well Total Depth	33.99 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	0.36 in
Depth to Water	18.70 ft	Total Volume Pumped	3.325 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 3%	+/- 10		+/- 0.2	+/- 100
Last 5	13:22:49	360.02	18.44	7.25	257.46	0.61	18.73	0.25	-54.72
Last 5	13:25:49	540.02	18.28	7.26	256.63	0.36	18.73	0.22	-53.90
Last 5	13:28:49	720.02	18.21	7.23	253.92	0.31	18.73	0.20	-53.07
Last 5	13:31:49	900.02	18.21	7.25	254.37	0.20	18.73	0.18	-53.34
Last 5	13:34:49	1080.02	18.29	7.24	253.97	0.18	18.73	0.17	-53.63
Variance 0			-0.06	-0.02	-2.71			-0.03	0.83
Variance 1			-0.00	0.01	0.44			-0.01	-0.27
Variance 2			0.08	-0.00	-0.40			-0.01	-0.29

Notes

Started purging at 1315

No issues here. Great after redevelopment

Grab Samples

GROUNDWATER SAMPLING LOG SHEET

Client: CPC
Site: Hulfish Rd
Well ID: GWC-18
Total Depth (ft)[1]: 56.65
Depth to Water (ft): 13.68
Well Diameter (in): 2"
Well Volume (gal) = 0.041d²h:
Well Volume (L) = gal * 3.785:
d = well diameter (inches) h = length of water column (feet)

Project No.: 0337351
Location: CPC Hammond
Pump Type/Model: Alexis Peri
Tubing Material: LDPE
Pump Intake Depth (ft): ~52
Start/Stop Purge Time: 0924 / 0954
Purge Rate (L/min)[2]:
Total Purge Volume (L): 6
Purge Method: Low-Flow Well Volume Other:
Sampling Method: Pump Discharge Other:

Sampling Date: 7/7/16
Sampler's Name: WV / MT
Sample Collection Time: 1000
Sample Purge Rate (L/min)[3]: 0.2 L/min
Sample ID: GWC-18
Laboratory Analyses:

QA/QC Collected? Yes
QA/QC I.D. Dup -

Well Type: Flush Stick-Up
Well Lock: Yes No
Well Bolted: Yes No Bolts Needed:
Well Cap Condition: Good Replace Other
Well Tag Present: Yes No Water in Vault: Yes No

All sample containers requiring chemical preservation properly preserved prior to demob from well? Yes No

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
0929	21.26	336.30	0.49	7.44	47.90	2.44	200	1	14.71	
0934	21.28	328.40	0.57	7.47	46.80	0.69	200	2	15.06	
0939	20.54	313.60	0.30	7.50	49.40	0.77	200	3	15.17	
0944	20.61	329.10	0.26	7.52	50.10	0.81	200	4	15.22	
0949	20.61	332.80	0.24	7.53	49.00	0.45	200	5	15.26	
0954	20.66	318.20	0.20	7.55	46.30	0.91	200	6	15.28	
Stabilizing Criteria[4,5]		+/- 5%	0.2 mg/L or 10% whichever is greater (9)	+/- 0.2 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

Product Name: Low-Flow System

Date: 2016-07-06 15:05:39

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	57 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	LaMotte	Pump placement from TOC	52 ft

Well Information:		Pumping Information:	
Well ID	GWC-19	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.3444151 L
Well Total Depth	57.21 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	6.84 in
Depth to Water	19.68 ft	Total Volume Pumped	6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 3%	+/- 10		+/- 0.2	+/- 100
Last 5	14:53:32	180.02	19.64	7.39	396.91	0.65	20.25	0.50	-20.31
Last 5	14:56:32	360.02	19.59	7.39	398.09	0.80	20.26	0.40	-27.89
Last 5	14:59:32	540.02	19.50	7.39	397.25	0.56	20.26	0.38	-29.64
Last 5	15:02:32	720.02	19.59	7.39	397.99	0.47	20.26	0.37	-31.43
Last 5									
Variance 0			-0.04	-0.00	1.18			-0.10	-7.58
Variance 1			-0.09	0.00	-0.83			-0.02	-1.75
Variance 2			0.09	-0.00	0.73			-0.01	-1.79

Notes

Pump started at 1435

Pulled DUP 1 here. No issues.

Grab Samples

GWC-19

Sample time 1506

DUP 1

Sample time 1506

GROUNDWATER SAMPLING LOG SHEET

Client: GPC
Site: Hulkaker
Well ID: GWC-20
Total Depth (ft)[1]: 34.06
Depth to Water (ft): 5.92
Well Diameter (in): 2
Well Volume (gal) = 0.041d²h: 4.6 gal ~~17.42~~
Well Volume (L) = gal * 3.785: 17.46
d = well diameter (inches) h = length of water column (feet)

Project No.: 0337351
Location: Rome GA.
Pump Type/Model: Alexis Peristaltic
Tubing Material: Silicon
Pump Intake Depth (ft): 29
Start/Stop Purge Time: 1108/1203
Purge Rate (L/min)[2]: 200
Total Purge Volume (L): 11
Purge Method: (Low-Flow) Well Volume Other:
Sampling Method: (Pump Discharge) Other:

Sampling Date: 7/7/16
Sampler's Name: M. Thomas / W. Virgo
Sample Collection Time: 1210
Sample Purge Rate (L/min)[3]: 200
Sample ID: GWC-20
Laboratory Analyses:

QA/QC Collected? No
QA/QC I.D.

Well Type: Flush (Stick Up)
Well Lock: (Yes) No
Well Bolted: Yes (No) Bolts Needed:
Well Cap Condition: (Good) Replace Other
Well Tag Present: (Yes) No Water in Vault: Yes No

All sample containers requiring chemical preservation properly preserved prior to demob from well? (Yes) No

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1113	21.37	279.30	0.32	7.35	-127.30	9.63	200	1	6.53	
1118	20.79	342.30	0.40	7.39	-128.40	13.28	200	2	6.68	
1123	20.75	328.20	0.30	7.39	-129.10	6.89	200	3	6.70	
1128	20.61	334.30	0.30	7.40	-129.70	6.75	200	4	6.76	
1133	20.66	326.10	0.29	7.40	-130.90	7.75	200	5	6.76	
1138	21.03	319.70	0.36	7.41	-131.80	6.50	200	6	6.77	
1143	21.01	245.70	0.36	7.40	-130.90	4.56	200	7	6.78	
1148	20.92	332.40	0.26	7.42	-131.10	3.71	200	8	6.80	
1153	21.04	327.80	0.27	7.41	-131.90	4.51	200	9	6.81	
1158	20.97	332.70	0.42	7.41	-134.10	4.13	200	10	6.82	
1203	21.73	329.90	0.31	7.39	-133.40	4.11	200	11	6.82	
Stabilizing Criteria[4,5]		+/- 5%	0.2 mg/L or 10% whichever is greater (9)	+/- 0.2 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

Product Name: Low-Flow System

Date: 2016-07-07 11:03:42

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	15 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	LaMotte	Pump placement from TOC	13 ft

Well Information:		Pumping Information:	
Well ID	GWC-21	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.1569514 L
Well Total Depth	17.93 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	12.48 in
Depth to Water	7.93 ft	Total Volume Pumped	19 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 3%	+/- 10		+/- 0.2	+/- 100
Last 5	10:49:05	3420.01	21.42	6.14	306.40	0.41	8.93	0.16	65.76
Last 5	10:52:05	3600.01	21.37	6.13	301.01	0.42	8.94	0.17	68.21
Last 5	10:55:05	3780.01	21.39	6.12	299.73	0.45	8.95	0.20	71.25
Last 5	10:58:05	3960.01	21.46	6.13	303.06	0.40	8.96	0.18	73.62
Last 5	11:01:05	4140.01	21.46	6.12	298.65	0.42	8.97	0.21	76.88
Variance 0			0.02	-0.01	-1.28			0.03	3.03
Variance 1			0.07	0.01	3.33			-0.02	2.37
Variance 2			0.00	-0.01	-4.41			0.02	3.26

Notes

Pump started at 09:45

Purged to 3 wv due to water level. Pulled an extra 1/2 gallon for Rads here per lab request for batch qc

Grab Samples

GWC-21

Sample time 1104

Product Name: Low-Flow System

Date: 2016-07-07 12:29:56

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444575		
Turbidity Make/Model	LaMotte	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-22	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2685369 L
Well Total Depth	41.75 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	7.73 in
Depth to Water	4.27 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 3%	+/- 10		+/- 0.2	+/- 100
Last 5	12:17:55	180.13	21.37	7.69	359.16	--	--	0.17	-144.26
Last 5	12:20:54	360.02	21.20	7.69	355.58	3.38	5.41	0.14	-140.63
Last 5	12:23:54	540.02	20.84	7.67	350.69	3.11	5.43	0.13	-135.08
Last 5	12:26:54	720.02	20.99	7.65	351.07	3.32	5.45	0.13	-133.62
Last 5									
Variance 0			-0.17	-0.00	-3.58			-0.03	3.62
Variance 1			-0.37	-0.02	-4.89			-0.01	5.56
Variance 2			0.15	-0.01	0.38			-0.00	1.46

Notes

Started pump at 1206

No issues here. Great after redevelopment. Pulled an extra 1/2 gallon bottle for Rads lab QC per lab request.

Grab Samples

Product Name: Low-Flow System

Date: 2016-07-07 13:23:45

Project Information:		Pump Information:	
Operator Name	W.Virgo/M.Thomas	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Hammon CCR	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	50 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	463072		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	45 ft

Well Information:		Pumping Information:	
Well ID	GWC-23	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5631711 L
Well Total Depth	49.72 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.92 in
Depth to Water	16.48 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:59:10	300.07	21.10	7.03	257.72	0.05	16.87	0.20	-29.20
Last 5	13:04:10	600.02	20.35	7.18	283.65	0.34	16.89	0.14	-94.61
Last 5	13:09:10	900.05	20.44	7.19	293.43	0.13	16.89	0.12	-94.99
Last 5	13:14:10	1200.03	20.39	7.18	294.77	0.02	16.89	0.10	-92.79
Last 5	13:19:10	1500.02	20.55	7.18	291.06	1.32	16.89	0.14	-90.65
Variance 0			0.09	0.01	9.78			-0.02	-0.38
Variance 1			-0.05	-0.01	1.33			-0.02	2.20
Variance 2			0.16	-0.00	-3.71			0.04	2.14

Notes

Started purging at 1254 @ 200 ml/min.
Well stable at 1319. Well sampled at 1325

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-18 09:46:48

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	0.17 in
Site Name	Plant Hammond	Tubing Length	42 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	GWA-1	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2774638 L
Well Total Depth	39.53 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	6 in
Depth to Water	20.82 ft	Total Volume Pumped	5.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	09:32:20	180.08	16.87	7.08	176.05	1.11	21.26	0.16	35.02
Last 5	09:35:20	360.02	16.78	7.05	173.76	1.22	21.26	0.14	23.09
Last 5	09:38:20	540.02	16.75	6.94	165.82	1.11	21.28	0.13	11.59
Last 5	09:41:20	720.02	16.76	6.85	165.35	0.82	21.30	0.11	2.38
Last 5	09:44:20	900.02	16.78	6.86	164.62	0.83	21.32	0.12	-3.81
Variance 0			-0.03	-0.11	-7.95			-0.01	-11.49
Variance 1			0.01	-0.09	-0.47			-0.01	-9.21
Variance 2			0.02	0.01	-0.73			0.00	-6.19

Notes

Purge started at 0923

Sample rate 250 mL/min; Clear, no odor; no issues

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-18 09:18:11

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd GW	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	27 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	20 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3305124 L
Well Total Depth	25.62 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.7 in
Depth to Water	12.21 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	09:01:39	300.09	20.11	6.48	424.49	5.16	12.32	0.76	-0.72
Last 5	09:06:39	600.03	19.91	6.61	423.28	0.91	12.38	0.72	-22.31
Last 5	09:11:39	900.02	19.95	6.67	423.55	0.71	12.38	0.70	-34.19
Last 5	09:16:39	1200.02	20.04	6.71	422.05	0.41	12.38	0.70	-43.04
Last 5									
Variance 0			-0.20	0.13	-1.20			-0.04	-21.58
Variance 1			0.05	0.06	0.27			-0.02	-11.88
Variance 2			0.09	0.04	-1.50			0.00	-8.86

Notes

All parameters stable.

Grab Samples

GWA-2

Sampling at 0919

Product Name: Low-Flow System

Date: 2016-10-18 10:08:16

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC	Tubing Diameter	0.17 in
Site Name	GPC Plant Hammond	Tubing Length	24 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364455		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWA-3	Final Pumping Rate	200 mL/min
Well diameter	2.00 in	Total System Volume	0.3271222 L
Well Total Depth	21.15 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.88 in
Depth to Water	9.78 ft	Total Volume Pumped	4.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:20:19	300.07	20.57	6.94	755.24	1.54	9.88	0.48	26.08
Last 5	09:25:19	600.02	21.22	6.70	747.81	4.75	9.95	0.24	0.67
Last 5	09:30:19	900.02	21.50	6.66	745.63	3.74	9.98	0.15	-9.67
Last 5	09:35:19	1200.02	21.74	6.66	743.76	3.37	10.00	0.12	-15.36
Last 5	09:40:19	1500.02	21.89	6.64	734.94	2.61	10.02	0.26	-18.99
Variance 0			0.28	-0.04	-2.17			-0.09	-10.34
Variance 1			0.24	-0.00	-1.88			-0.03	-5.69
Variance 2			0.15	-0.02	-8.82			0.14	-3.63

Notes

Parameters are stable after three consecutive readings; turbidity < 5 NTU; Initial purge rate of 150 ml/min changed to 200 ml/min at 09:19; Sample time is 09:45; Measured TD is 21.64 ft btoc

Grab Samples

GWA-3

Groundwater sample

Product Name: Low-Flow System

Date: 2016-10-18 12:36:08

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC	Tubing Diameter	0.17 in
Site Name	GPC Plant Hammond	Tubing Length	24 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364455		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWA-4	Final Pumping Rate	200 mL/min
Well diameter	2.00 in	Total System Volume	0.3271222 L
Well Total Depth	21.21 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	19.8 in
Depth to Water	14.73 ft	Total Volume Pumped	17.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:37:16	3300.02	21.43	6.67	792.36	20.00	16.21	0.15	-12.68
Last 5	11:42:16	3600.02	21.73	6.71	802.81	8.87	16.29	0.12	-15.17
Last 5	11:47:16	3900.02	21.80	6.73	804.57	3.11	16.30	0.11	-16.30
Last 5	11:52:17	4201.49	21.93	6.72	797.42	2.05	16.35	0.13	-17.81
Last 5	11:57:17	4501.02	21.99	6.73	787.09	1.84	16.38	0.14	-18.52
Variance 0			0.07	0.02	1.76			-0.01	-1.13
Variance 1			0.13	-0.00	-7.15			0.02	-1.51
Variance 2			0.06	0.01	-10.32			0.01	-0.71

Notes

Parameters are stable after three consecutive readings with turbidity <5 NTU; Three well volume purging due to water level below top of screen zone; Initial purge rate of 200 ml/min increased to 300 ml/min @ 11:01, and after third volume decreased to 200 ml/min @ 11:31 then 180 ml/min @ 11:51 due to continued drawdown; Sample time is 12:05 and sample rate is 180 ml/min; Extra Radium bottle collected; Measured TD is 21.76 ft

Grab Samples
GWA-4
Groundwater sample

Product Name: Low-Flow System

Date: 2016-10-18 10:57:52

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	0.17 in
Site Name	Plant Hammond	Tubing Length	37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWA-11	Final Pumping Rate	230 mL/min
Well diameter	2 in	Total System Volume	0.2551467 L
Well Total Depth	35.91 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	2.76 in
Depth to Water	22.99 ft	Total Volume Pumped	3.68 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	10:45:48	180.09	17.23	6.57	189.70	5.61	23.22	0.22	4.20
Last 5	10:48:48	360.02	17.14	6.57	190.13	4.32	23.22	0.20	1.03
Last 5	10:51:48	540.02	17.25	6.58	189.92	4.01	23.22	0.18	-1.22
Last 5	10:54:48	720.02	17.23	6.58	189.33	2.75	23.22	0.16	-2.18
Last 5									
Variance 0			-0.09	0.01	0.42			-0.02	-3.17
Variance 1			0.11	0.01	-0.21			-0.02	-2.25
Variance 2			-0.03	0.00	-0.59			-0.02	-0.96

Notes

Started purge at 1038

Sample rate 230mL/min; clear, no odor; no issues; Dup-1 pulled here.

Grab Samples

GWA-11

Sample time 1100

Dup-1

Sample time 1100

Product Name: Low-Flow System

Date: 2016-10-18 10:36:14

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd GW	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	24 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWC-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3171222 L
Well Total Depth	21.24 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.06 in
Depth to Water	7.52 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	10:18:55	300.03	22.15	6.82	560.99	2.17	7.57	0.19	-25.26
Last 5	10:23:55	600.02	22.09	6.85	562.78	1.42	7.58	0.15	-33.84
Last 5	10:28:55	900.02	22.13	6.87	561.37	1.27	7.58	0.14	-39.85
Last 5	10:33:55	1200.02	22.13	6.90	560.83	1.23	7.58	0.11	-44.09
Last 5									
Variance 0			-0.06	0.03	1.79			-0.04	-8.57
Variance 1			0.05	0.02	-1.41			-0.01	-6.02
Variance 2			0.00	0.02	-0.54			-0.02	-4.24

Notes

All parameters stable

Grab Samples

GWC-5

Sampling at 1039

Product Name: Low-Flow System

Date: 2016-10-18 15:04:18

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC	Tubing Diameter	0.17 in
Site Name	GPC Plant Hammond	Tubing Length	44 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364455		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	150 mL/min
Well diameter	2.00 in	Total System Volume	0.4163906 L
Well Total Depth	42.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.84 in
Depth to Water	19.75 ft	Total Volume Pumped	10.45 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:10:06	2400.01	21.51	6.78	489.53	3.85	19.82	0.44	-86.74
Last 5	14:15:06	2700.01	21.66	6.79	489.50	3.42	19.82	1.03	-88.42
Last 5	14:20:06	3000.01	21.84	6.80	495.37	3.85	19.82	0.37	-90.24
Last 5	14:25:06	3300.01	21.71	6.81	494.33	3.86	19.82	0.11	-90.97
Last 5	14:30:06	3600.01	21.92	6.81	495.80	3.82	19.82	0.10	-92.11
Variance 0			0.18	0.01	5.87			-0.66	-1.82
Variance 1			-0.13	0.02	-1.04			-0.26	-0.73
Variance 2			0.21	0.00	1.47			-0.01	-1.14

Notes

Parameters are stable after three consecutive readings with turbidity < 5 NTU; Initial purge rate of 200 ml/min was lowered to 180 ml/min @ 13:50 and then to 150 ml/min @ 14:05 due to high turbidity readings; Sample time is 14:35 with a sample rate of 150 ml/min; Measured TD is 43.05 ft

Grab Samples

GWC-6

Groundwater sample

Product Name: Low-Flow System

Date: 2016-10-18 12:34:17

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd GW	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	33 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	26 ft

Well Information:		Pumping Information:	
Well ID	GWC-7	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.357293 L
Well Total Depth	31.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.1 in
Depth to Water	20.09 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:13:00	1200.02	21.39	6.07	210.25	6.82	20.20	5.16	-14.20
Last 5	12:18:00	1500.02	21.33	5.96	374.10	7.44	20.20	0.69	-5.24
Last 5	12:23:00	1799.94	21.31	5.93	371.34	4.67	20.21	0.66	-1.80
Last 5	12:28:00	2099.94	21.26	5.92	371.35	4.25	20.21	0.71	0.11
Last 5	12:33:00	2399.94	21.46	5.90	373.37	4.12	20.21	0.66	1.34
Variance 0			-0.02	-0.03	-2.76			-0.03	3.44
Variance 1			-0.05	-0.01	0.01			0.06	1.90
Variance 2			0.21	-0.02	2.02			-0.06	1.23

Notes

Parameters stable

Grab Samples

GWC-7

Sampling at 1236

Product Name: Low-Flow System

Date: 2016-10-18 14:44:00

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd GW	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	30 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	22 ft

Well Information:		Pumping Information:	
Well ID	GWC-8	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3439027 L
Well Total Depth	27.1 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	20.88 in
Depth to Water	16.77 ft	Total Volume Pumped	24.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	14:21:50	2699.98	21.98	7.48	360.18	8.09	19.48	0.86	-61.52
Last 5	14:26:50	2999.98	21.83	7.50	359.81	7.03	1896.00	0.88	-65.11
Last 5	14:31:50	3299.98	22.02	7.49	360.01	1.81	18.88	0.90	-67.83
Last 5	14:36:50	3599.98	22.10	7.50	358.59	1.61	18.62	0.89	-69.62
Last 5	14:41:50	3899.98	22.14	7.50	358.85	1.32	18.51	0.88	-71.20
Variance 0			0.20	-0.00	0.20			0.02	-2.72
Variance 1			0.08	0.01	-1.43			-0.01	-1.79
Variance 2			0.04	-0.00	0.26			-0.01	-1.58

Notes

Water level less than a foot above screen. Purging 3 well volumes
Parameters stable

Grab Samples

GWC-8

Sampling at 1445

Product Name: Low-Flow System

Date: 2016-10-19 09:42:41

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC- Plant Hammond	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	54 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	47 ft

Well Information:		Pumping Information:	
Well ID	GWC-9	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4510248 L
Well Total Depth	52.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.8 in
Depth to Water	20.51 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	09:21:39	1200.02	19.19	6.74	313.18	9.56	20.73	0.32	-33.83
Last 5	09:26:39	1500.02	19.20	6.76	312.40	6.16	20.73	0.28	-43.64
Last 5	09:31:40	1800.44	19.19	6.79	313.84	4.87	20.73	0.28	-52.47
Last 5	09:36:40	2100.44	19.27	6.81	313.02	4.18	20.73	0.26	-59.27
Last 5	09:41:40	2400.44	19.17	6.84	313.25	3.08	20.73	0.25	-64.98
Variance 0			-0.01	0.03	1.44			0.00	-8.82
Variance 1			0.08	0.02	-0.82			-0.02	-6.80
Variance 2			-0.10	0.03	0.23			-0.02	-5.71

Notes

Parameters stable

Grab Samples

GWC-9

Sampling at 0944

Product Name: Low-Flow System

Date: 2016-10-18 12:25:01

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	0.17 in
Site Name	Plant Hammond	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-10	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	33.99 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	0.36 in
Depth to Water	21.85 ft	Total Volume Pumped	4.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:14:13	180.03	18.79	7.11	255.84	1.57	21.88	0.21	-21.27
Last 5	12:17:13	360.02	18.61	7.10	254.65	0.89	21.88	0.16	-30.57
Last 5	12:20:13	540.02	18.59	7.11	254.19	0.72	21.88	0.14	-37.80
Last 5	12:23:13	720.02	18.70	7.11	254.31	0.54	21.88	0.13	-43.31
Last 5									
Variance 0			-0.18	-0.01	-1.19			-0.05	-9.31
Variance 1			-0.02	0.00	-0.46			-0.02	-7.23
Variance 2			0.11	0.00	0.12			-0.01	-5.51

Notes

Purge started at 1206

Sample rate 250 mL/min; Clear, no odor; no issues

Grab Samples

GWC-10

Sample time 1228

Product Name: Low-Flow System

Date: 2016-10-19 11:06:35

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC- Plant Hammond	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	58 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	51 ft

Well Information:		Pumping Information:	
Well ID	GWC-18	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4688785 L
Well Total Depth	56 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	11.07 in
Depth to Water	17.58 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	10:45:01	300.09	21.26	7.61	325.99	1.99	18.06	0.95	-2.53
Last 5	10:50:01	600.02	20.44	7.68	326.40	1.91	18.41	0.82	-4.62
Last 5	10:55:01	900.02	20.53	7.67	327.67	1.86	18.55	0.74	-1.76
Last 5	11:00:01	1200.02	20.57	7.67	327.50	--	--	0.69	-0.67
Last 5	11:05:01	1500.02	20.36	7.66	326.15	1.51	18.61	0.69	-0.31
Variance 0			0.09	-0.02	1.27			-0.08	2.86
Variance 1			0.04	0.00	-0.17			-0.06	1.09
Variance 2			-0.21	-0.01	-1.35			0.01	0.36

Notes

Parameters stable

Grab Samples

GWC-18

Sampling at 1108

Product Name: Low-Flow System

Date: 2016-10-18 13:53:56

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	0.17 in
Site Name	Plant Hammond	Tubing Length	59 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	52 ft

Well Information:		Pumping Information:	
Well ID	GWC-19	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.3533419 L
Well Total Depth	57.21 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	5.64 in
Depth to Water	23.12 ft	Total Volume Pumped	4.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	13:43:06	180.02	20.35	7.27	389.74	1.60	23.57	0.21	-52.25
Last 5	13:46:06	360.02	19.81	7.33	394.69	1.86	23.58	0.18	-61.46
Last 5	13:49:06	540.02	19.81	7.34	398.02	1.47	23.59	0.17	-68.90
Last 5	13:52:06	720.02	19.90	7.35	396.91	1.23	23.59	0.15	-75.05
Last 5									
Variance 0			-0.54	0.05	4.95			-0.03	-9.20
Variance 1			0.00	0.02	3.33			-0.01	-7.44
Variance 2			0.09	0.01	-1.11			-0.02	-6.16

Notes

Started purge at 1333

Sample rate 250mL/min; Clear, no odor. No issues.

Grab Samples

GWC-19

Sample time 1357

Product Name: Low-Flow System

Date: 2016-10-19 12:23:21

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC- Plant Hammond	Tubing Diameter	.17 in
Site Name	Huffaker Rd	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-20	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3706832 L
Well Total Depth	34.06 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.9 in
Depth to Water	9.16 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:07:11	300.03	21.46	7.32	358.61	2.24	9.63	0.34	-95.15
Last 5	12:12:11	600.02	20.87	7.30	355.03	1.64	9.72	0.20	-112.13
Last 5	12:17:11	900.02	21.29	7.31	352.05	1.57	9.75	0.30	-115.68
Last 5	12:22:11	1200.02	21.25	7.35	352.56	1.42	9.75	0.23	-120.69
Last 5									
Variance 0			-0.59	-0.02	-3.58			-0.13	-16.97
Variance 1			0.42	0.01	-2.98			0.09	-3.56
Variance 2			-0.04	0.04	0.51			-0.07	-5.00

Notes

Parameters stable

Grab Samples

GWC-20

Sampling at 1225

Product Name: Low-Flow System

Date: 2016-10-19 13:43:51

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	27 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWC-21	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2105124 L
Well Total Depth	18.47 ft	Calculated Sample Rate	60 sec
Screen Length	10 ft	Stabilization Drawdown	3.96 in
Depth to Water	13.36 ft	Total Volume Pumped	0.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	13:42:34	60.09	28.55	7.11	432.96	2.58	13.69	1.70	30.95
Last 5									
Last 5									
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.00	0.00	0.00			0.00	0.00
Variance 2			0.00	0.00	0.00			0.00	0.00

Notes

One reading only for sampling after purging dry

Grab Samples

GWC-21

Sample time 1345

Product Name: Low-Flow System

Date: 2016-10-19 10:42:49

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	27 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	15 ft

Well Information:		Pumping Information:	
Well ID	GWC-21	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2105124 L
Well Total Depth	18.47 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	78.36 in
Depth to Water	11.77 ft	Total Volume Pumped	7.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	10:14:15	2700.02	19.71	7.02	518.95	1.21	16.56	0.37	-38.81
Last 5	10:19:15	3000.01	19.75	7.01	517.14	0.96	16.99	0.44	-40.91
Last 5	10:24:15	3300.01	19.88	7.03	507.53	0.94	17.36	0.40	-38.60
Last 5	10:29:15	3600.01	20.22	7.09	531.87	2.15	17.58	3.50	-49.88
Last 5	10:34:15	3900.02	19.72	6.97	491.02	2.03	18.00	0.26	-60.43
Variance 0			0.13	0.02	-9.62			-0.04	2.31
Variance 1			0.34	0.05	24.34			3.10	-11.27
Variance 2			-0.50	-0.12	-40.85			-3.24	-10.56

Notes

Started purge at 0926

Well purged dry at 10:37, water level 18.30. Initially intake set at 15', then lowered to 17.5', then lowered to bottom and pulled back up just a little. Purge rate 100mL/min the whole time. Well will be allowed to recharge before sampling.

Grab Samples

Product Name: Low-Flow System

Date: 2016-10-19 11:20:53

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	49 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-22	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.3087077 L
Well Total Depth	41.75 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	12.6 in
Depth to Water	8.65 ft	Total Volume Pumped	4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	11:09:25	180.03	20.07	7.59	349.07	1.70	9.64	0.17	-120.09
Last 5	11:12:25	360.06	20.08	7.60	347.80	1.67	9.67	0.14	-126.94
Last 5	11:15:25	540.04	20.11	7.62	347.82	1.85	9.69	0.13	-130.49
Last 5	11:18:25	720.02	20.05	7.64	347.95	1.67	9.70	0.12	-134.23
Last 5									
Variance 0			0.01	0.01	-1.27			-0.02	-6.84
Variance 1			0.03	0.02	0.02			-0.02	-3.55
Variance 2			-0.06	0.02	0.13			-0.01	-3.74

Notes

Started purge at 11:00

Sample rate 250 mL/min; clear, no odor. No issues.

Grab Samples

GWC-22

Sample time 1123

Product Name: Low-Flow System

Date: 2016-10-19 12:23:50

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker	Tubing Length	53 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	45 ft

Well Information:		Pumping Information:	
Well ID	GWC-23	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.3265614 L
Well Total Depth	49.72 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	5.04 in
Depth to Water	21.08 ft	Total Volume Pumped	4.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 100
Last 5	12:12:58	180.04	19.77	7.05	285.68	0.75	21.50	0.16	-85.59
Last 5	12:15:58	360.02	19.83	7.04	283.52	0.71	21.50	0.14	-86.03
Last 5	12:18:58	540.02	19.90	7.04	282.18	0.75	21.50	0.12	-87.17
Last 5	12:21:58	720.02	19.73	7.05	280.60	0.66	21.50	0.11	-87.27
Last 5									
Variance 0			0.06	-0.01	-2.16			-0.02	-0.45
Variance 1			0.07	-0.00	-1.33			-0.02	-1.14
Variance 2			-0.17	0.00	-1.58			-0.01	-0.10

Notes

Started purge at 12:03

Sample rate 250 mL/min; Clear, no odor. No issues.

Grab Samples

GWC-23

Sample time 1227

Product Name: Low-Flow System

Date: 2016-12-06 10:05:26

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	42 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	GWA-1	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2774638 L
Well Total Depth	39.53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.84 in
Depth to Water	20.16 ft	Total Volume Pumped	3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	09:51:09	300.14	15.63	6.95	182.20	1.17	20.55	0.20	-24.03
Last 5	09:56:09	600.02	15.68	7.00	188.83	0.73	20.58	0.16	-30.01
Last 5	10:01:09	900.02	15.70	6.98	181.85	0.57	20.60	0.14	-42.55
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.05	0.05	6.64			-0.04	-5.99
Variance 2			0.02	-0.02	-6.99			-0.02	-12.54

Notes

Started purge at 0942. Raining. 53F.

Raining, 53. Clear, no odor. Sample rate 250 mL/min. Extra rad bottle filled here.

Grab Samples

GWA-1

Sample time 1006

Product Name: Low-Flow System

Date: 2016-12-07 16:14:44

Project 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	Hammond Huffaker Road	Tubing Length	28 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	365491		
Turbidity Make/Model	LaMotte2020we	Pump placement from TOC	20 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	259 mL/min
Well diameter	2 in	Total System Volume	0.2149758 L
Well Total Depth	25.62 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4 in
Depth to Water	11.04 ft	Total Volume Pumped	6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	15:45:01	300.08	17.71	6.92	418.92	1.09	11.22	0.40	-40.63
Last 5	15:50:01	600.03	17.98	6.75	418.69	1.23	11.28	0.21	-45.16
Last 5	15:55:01	900.02	18.23	6.70	413.11	1.11	11.30	0.18	-48.64
Last 5	16:00:01	1200.02	18.16	6.70	408.18	1.61	11.31	0.26	-50.28
Last 5	16:05:01	1500.02	18.21	6.71	406.90	1.17	11.32	0.32	-51.53
Variance 0			0.25	-0.05	-5.58			-0.03	-3.48
Variance 1			-0.07	-0.00	-4.93			0.08	-1.63
Variance 2			0.05	0.01	-1.28			0.05	-1.25

Notes

1540 start purge@250mL/min, 1605 all parameters stable, 1610 sampled@250mL/min. Sunny, light wind, 57F

Grab Samples

GWA-2

Sampled at 1410 .5gal, 1qt, 250mL

GWA-2

Error above. Sampled at 1610

Product Name: Low-Flow System

Date: 2016-12-06 11:36:17

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	23 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWA-3	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.1926587 L
Well Total Depth	21.15 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.68 in
Depth to Water	4.85 ft	Total Volume Pumped	5.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	11:13:04	600.02	18.82	6.37	833.31	8.65	5.24	0.19	50.61
Last 5	11:18:04	900.02	18.92	6.35	833.43	6.52	5.24	0.15	48.96
Last 5	11:23:04	1200.02	18.96	6.34	839.86	4.52	5.24	0.13	46.57
Last 5	11:28:04	1500.02	19.00	6.35	827.30	3.48	5.24	0.12	46.76
Last 5	11:33:04	1800.02	19.05	6.34	833.54	2.66	5.24	0.11	45.43
Variance 0			0.04	-0.01	6.43			-0.02	-2.38
Variance 1			0.04	0.00	-12.56			-0.01	0.19
Variance 2			0.05	-0.01	6.23			-0.01	-1.33

Notes

Started purge at 1100

Sample rate 250 mL/min. Weather - cloudy, 56. Water - clear, no odor. Yellowish "floaty" material in water during early purge.

Grab Samples

GWA-3

Sample time 1138

Product Name: Low-Flow System

Date: 2016-12-06 13:11:03

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	25 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	18 ft

Well Information:		Pumping Information:	
Well ID	GWA-4	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2015856 L
Well Total Depth	21.21 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	9.12 in
Depth to Water	13.89 ft	Total Volume Pumped	14.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	12:48:11	2100.02	18.62	6.57	950.30	0.37	14.63	0.11	40.33
Last 5	12:53:11	2400.02	18.47	6.58	928.64	0.43	14.63	0.11	36.01
Last 5	12:58:11	2700.02	18.43	6.60	914.93	0.36	14.65	0.12	32.66
Last 5	13:03:11	3000.02	18.52	6.60	904.16	0.36	14.65	0.11	29.81
Last 5	13:08:11	3300.02	18.53	6.61	894.06	0.41	14.65	0.10	27.62
Variance 0			-0.05	0.02	-13.71			0.00	-3.35
Variance 1			0.10	-0.00	-10.77			-0.01	-2.86
Variance 2			0.00	0.01	-10.10			-0.01	-2.19

Notes

Started purge at 1211

Purged to 3 wv. Weather - cloudy, 58. Water - clear, no odor. No issues. Sample rate 250 mL/ min

Grab Samples

GWA-4

Sample time 1313

Product Name: Low-Flow System

Date: 2016-12-06 14:14:46

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWA-11	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2596101 L
Well Total Depth	35.91 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3.12 in
Depth to Water	19.22 ft	Total Volume Pumped	4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	14:02:10	300.02	16.68	6.66	205.35	3.30	19.47	0.33	-17.35
Last 5	14:07:10	600.02	16.77	6.65	209.68	2.02	19.48	0.26	-19.22
Last 5	14:12:10	900.02	16.73	6.66	209.66	1.57	19.48	0.19	-20.76
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			0.09	-0.01	4.33			-0.07	-1.88
Variance 2			-0.05	0.01	-0.02			-0.07	-1.53

Notes

Started purge at 1354

Weather - cloudy, 59. Water - clear, no odor. Sample rate 250 mL/min. No issues.

Grab Samples

GWA-11

Sample time 1417

Product Name: Low-Flow System

Date: 2016-12-08 10:17:03

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	.25 in
Site Name	Hammond - AP 1 & 2	Tubing Length	24 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	463068		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	2 ft

Well Information:		Pumping Information:	
Well ID	GWC-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4416655 L
Well Total Depth	21.24 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.96 in
Depth to Water	5.91 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:55:09	299.98	13.86	6.66	625.92	9.12	5.99	0.23	49.22
Last 5	10:00:09	599.98	15.30	6.64	623.57	5.96	5.99	0.20	43.80
Last 5	10:05:09	899.98	15.05	6.55	623.36	4.58	5.99	0.17	39.80
Last 5	10:10:09	1199.98	15.75	6.60	614.87	4.64	5.99	0.15	31.36
Last 5	10:15:09	1499.98	15.63	6.55	618.71	4.81	5.99	0.13	27.20
Variance 0			-0.25	-0.09	-0.21			-0.03	-4.00
Variance 1			0.70	0.04	-8.49			-0.03	-8.44
Variance 2			-0.13	-0.04	3.84			-0.01	-4.16

Notes

Parameters stable

Grab Samples

GWC-5

Sampling at 1018

Product Name: Low-Flow System

Date: 2016-12-08 11:40:52

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	.25 in
Site Name	Hammond - Huffaker	Tubing Length	44 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	463068		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	2 ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.9097202 L
Well Total Depth	42.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.2 in
Depth to Water	19.49 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:23:29	300.04	13.45	6.84	500.65	7.36	19.58	0.43	-18.56
Last 5	11:28:29	600.02	14.54	6.85	491.33	4.48	19.59	0.24	-36.12
Last 5	11:33:29	900.03	15.31	6.86	488.62	4.26	19.59	0.21	-45.75
Last 5	11:38:29	1200.02	15.23	6.85	483.35	4.59	19.59	0.17	-51.85
Last 5									
Variance 0			1.10	0.01	-9.31			-0.19	-17.56
Variance 1			0.77	0.01	-2.71			-0.03	-9.63
Variance 2			-0.08	-0.01	-5.28			-0.03	-6.10

Notes

Parameters stable. Weather: cold cloudy

Grab Samples

GWC-6

Sampling at 1143

Product Name: Low-Flow System

Date: 2016-12-08 12:17:47

Project 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	Hammond Huffaker Road	Tubing Length	43 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	365491		
Turbidity Make/Model	LaMotte2020we	Pump placement from TOC	26 ft

Well Information:		Pumping Information:	
Well ID	GWC-7	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.2819272 L
Well Total Depth	31.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	20.42 ft	Total Volume Pumped	16.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:45:18	8699.94	11.55	5.72	368.04	6.46	20.53	0.16	113.84
Last 5	11:50:18	8999.94	11.51	5.72	367.95	5.67	20.53	0.16	117.69
Last 5	11:55:18	9299.96	11.61	5.72	371.81	5.00	20.53	0.17	119.66
Last 5	12:00:18	9599.94	11.97	5.73	365.80	4.84	20.53	0.16	123.19
Last 5	12:05:18	9899.94	11.66	5.73	369.06	4.72	20.53	0.16	131.81
Variance 0			0.09	-0.00	3.86			0.01	1.97
Variance 1			0.36	0.01	-6.01			-0.01	3.53
Variance 2			-0.31	-0.00	3.26			-0.00	8.62

Notes

0920 start purge@100mL/min, 1205 all parameters stable, 1210 sampled@100mL/min. Partly cloudy, windy, 45F

Grab Samples

GWC-7

Sampled at 1210 .5gal, 1qt, 250mL

Product Name: Low-Flow System

Date: 2016-12-08 13:48:00

Project Information:		Pump Information:	
Operator Name	M. Rogers	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	.17 in
Site Name	Hammond - AP 1 & 2	Tubing Length	30 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	463068		
Turbidity Make/Model	Lamotte 2020we	Pump placement from TOC	2 ft

Well Information:		Pumping Information:	
Well ID	GWC-8	Final Pumping Rate	500 mL/min
Well diameter	2 in	Total System Volume	0.3439027 L
Well Total Depth	27.10 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	23.88 in
Depth to Water	17.50 ft	Total Volume Pumped	22 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:25:40	2400.97	16.25	7.08	329.47	5.14	21.10	3.40	-20.80
Last 5	13:30:40	2700.97	15.25	7.18	397.48	4.55	20.49	0.20	-26.81
Last 5	13:35:40	3000.97	14.92	7.22	392.35	2.85	19.85	0.13	-33.63
Last 5	13:40:40	3300.97	14.71	7.25	392.21	3.48	19.61	0.12	-38.41
Last 5	13:45:40	3600.97	14.49	7.28	385.49	3.39	19.49	0.12	-41.58
Variance 0			-0.33	0.04	-5.13			-0.07	-6.82
Variance 1			-0.21	0.03	-0.14			-0.01	-4.78
Variance 2			-0.22	0.04	-6.73			0.00	-3.18

Notes

Purging 3 well volumes. Will decrease purge rate to .200L/min after 3rd volume
Parameters stable. Weather: cold cloudy

Grab Samples

GWC-8

Sampling at 1350

Product Name: Low-Flow System

Date: 2016-12-08 13:38:27

Project Information:		Pump Information:	
Operator Name	Markevious Thomas	Pump Model/Type	Alexis Perstaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	.17 in
Site Name	Hammond - AP 1 & 2	Tubing Length	55 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	365491		
Turbidity Make/Model	LaMotte2020we	Pump placement from TOC	47 ft

Well Information:		Pumping Information:	
Well ID	GWC-9	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.3354883 L
Well Total Depth	52.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2 in
Depth to Water	19.9 ft	Total Volume Pumped	6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:10:23	300.05	14.72	6.34	327.12	9.97	20.16	0.21	-28.44
Last 5	13:15:23	600.04	14.79	6.43	324.65	7.50	20.16	0.16	-51.76
Last 5	13:20:23	900.04	15.02	6.48	323.43	4.33	20.17	0.14	-65.88
Last 5	13:25:23	1200.04	14.96	6.52	309.33	3.32	20.18	0.12	-73.95
Last 5	13:30:23	1500.04	15.03	6.54	323.42	2.05	20.18	0.12	-81.47
Variance 0			0.23	0.05	-1.22			-0.03	-14.11
Variance 1			-0.06	0.04	-14.10			-0.01	-8.07
Variance 2			0.06	0.03	14.09			0.00	-7.52

Notes

1305 start purge@250mL/min, 1330 all parameters stable, 1335 sampled@250mL/min. Overcast, windy, 45F

Grab Samples

GWC-9

Sampled at 1335 .5gal, 1qt, 250mL

Product Name: Low-Flow System

Date: 2016-12-06 15:29:47

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-10	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	33.99 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.48 in
Depth to Water	22.76 ft	Total Volume Pumped	9.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	15:05:33	900.02	16.82	7.27	283.13	1.12	22.80	2.94	-81.42
Last 5	15:10:33	1200.02	16.82	7.28	282.76	1.29	22.80	0.74	-83.39
Last 5	15:15:33	1500.02	16.82	7.30	281.85	0.63	22.80	0.59	-84.85
Last 5	15:20:33	1800.02	16.87	7.31	281.90	0.58	22.80	0.52	-85.84
Last 5	15:25:33	2100.02	16.91	7.32	281.30	0.47	22.80	0.58	-86.89
Variance 0			-0.00	0.01	-0.91			-0.15	-1.46
Variance 1			0.05	0.01	0.05			-0.07	-0.98
Variance 2			0.04	0.01	-0.60			0.06	-1.06

Notes

Started purge at 1447

Weather - cloudy, 61. Water - clear, no odor. Sample rate 250 mL/min. Just before 2nd reading, LDPE tubing slid out of silicone tubing, so DO reading is quite high for 2 readings. DUP-1 here.

Grab Samples
GWC-10
    Sample time 1530
DUP-1
    No sample time

Product Name: Low-Flow System

Date: 2016-12-08 14:55:54

Project Information:		Pump Information:	
Operator Name	Markevious Thomas	Pump Model/Type	Alexis Perstaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	.17 in
Site Name	Hammond Huffaker Road	Tubing Length	60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	365491		
Turbidity Make/Model	LaMotte2020we	Pump placement from TOC	51 ft

Well Information:		Pumping Information:	
Well ID	GWC-18	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.3578054 L
Well Total Depth	56.65 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	20 in
Depth to Water	14.45 ft	Total Volume Pumped	6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:27:29	300.09	14.78	7.15	373.72	1.23	15.53	1.43	76.01
Last 5	14:32:29	600.01	15.19	7.33	362.21	1.00	15.84	1.20	94.48
Last 5	14:37:29	900.01	15.19	7.41	347.76	0.93	16.00	0.71	95.65
Last 5	14:42:29	1200.01	15.37	7.44	345.50	0.97	16.07	0.59	99.78
Last 5	14:47:29	1500.01	15.25	7.47	344.67	1.14	16.10	0.54	109.97
Variance 0			0.00	0.08	-14.45			-0.49	1.17
Variance 1			0.17	0.03	-2.26			-0.12	4.14
Variance 2			-0.11	0.03	-0.83			-0.06	10.19

Notes

1422 start purge@250mL/min, 1447 all parameters stable, 1450 sampled&@250mL/min. Party cloudy, windy, 45F

Grab Samples

GWC-18

Sampled at 1450 .5gal, 1qt, 250mL

Product Name: Low-Flow System

Date: 2016-12-07 09:38:58

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	55 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	GWC-19	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.3354883 L
Well Total Depth	52.71 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	6.12 in
Depth to Water	22.79 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	09:23:40	300.13	15.17	7.40	411.22	3.84	23.28	0.45	-95.73
Last 5	09:28:40	600.02	14.95	7.41	412.03	2.57	23.30	0.31	-97.48
Last 5	09:33:40	900.02	15.45	7.42	414.98	1.05	23.30	0.32	-99.75
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.22	0.01	0.81			-0.14	-1.75
Variance 2			0.50	0.01	2.95			0.02	-2.27

Notes

Purge started at 0913

Sample rate 250 mL/min. Water - clear, no odor. Weather sunny, 50-ish (no signal for weather app). No issues

Grab Samples

GWC-19

Sample time 0938

Product Name: Low-Flow System

Date: 2016-12-07 10:49:51

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-20	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	34.06 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	11.52 in
Depth to Water	8.54 ft	Total Volume Pumped	4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	10:36:03	300.09	15.91	7.30	363.23	3.46	9.31	0.21	-111.93
Last 5	10:41:02	600.02	15.88	7.33	362.30	2.32	9.46	0.19	-114.19
Last 5	10:46:02	900.02	15.84	7.35	362.03	1.59	9.50	0.17	-116.97
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.03	0.03	-0.93			-0.02	-2.26
Variance 2			-0.05	0.03	-0.27			-0.02	-2.79

Notes

Started purge at 1028

Sample rate 250 mL/min. Water - clear, no odor. No cell signal for weather. ~50, sunny. Dup-2 here.

Grab Samples

GWC-20

Sample time 1051

DUP-2

No sample time

Product Name: Low-Flow System

Date: 2016-12-07 12:56:53

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	26 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	15 ft

Well Information:		Pumping Information:	
Well ID	GWC-21	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.206049 L
Well Total Depth	17.93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	97.92 in
Depth to Water	10.19 ft	Total Volume Pumped	8.85 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	12:28:19	2400.02	16.46	7.23	520.15	5.17	13.89	1.51	50.37
Last 5	12:33:19	2700.02	16.10	7.22	524.32	4.67	14.23	1.30	50.00
Last 5	12:38:19	3000.02	16.85	7.18	517.63	11.64	15.78	1.09	-32.18
Last 5	12:43:19	3300.02	16.96	7.21	516.91	6.45	17.15	1.05	-17.47
Last 5	12:48:19	3600.02	16.86	7.24	414.57	--	18.35	3.76	-37.23
Variance 0			0.75	-0.05	-6.69			-0.21	-82.19
Variance 1			0.11	0.03	-0.72			-0.04	14.72
Variance 2			-0.09	0.03	-102.34			2.71	-19.76

Notes

Started purge at 1142

Purged dry. At 1218, dropped intake to 16'. When it was clear that WL was not going to stabilize (1233), turned pump up to 250mL/ min to purge dry and dropped intake to just off the bottom of the well. Lots of ant bodies. Could not obtain final turbidity as well purged dry as readings were recorded & I was grabbing the turbidity cuvette.

Grab Samples

Product Name: Low-Flow System

Date: 2016-12-07 13:45:34

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-22	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	41.75 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	12.84 in
Depth to Water	5.80 ft	Total Volume Pumped	5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	13:26:49	300.03	16.46	7.73	368.89	3.88	6.47	0.29	-84.92
Last 5	13:31:49	600.02	16.66	7.71	367.34	1.69	6.74	0.16	-92.70
Last 5	13:36:49	900.02	16.67	7.72	366.33	1.15	6.84	0.13	-96.79
Last 5	13:41:49	1200.02	16.66	7.72	365.71	1.27	6.87	0.11	-98.71
Last 5									
Variance 0			0.20	-0.02	-1.55			-0.13	-7.78
Variance 1			0.01	0.00	-1.01			-0.03	-4.08
Variance 2			-0.01	0.01	-0.62			-0.02	-1.92

Notes

Purge started at 1319

Sample rate 250 mL/min. Weather - 57, sunny. Water - clear, no odor. No issues. Extra rad bottle here.

Grab Samples

GWC-22

Sample time 1346

Product Name: Low-Flow System

Date: 2016-12-07 14:57:11

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker Rd	Tubing Length	52 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	364456		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	45 ft

Well Information:		Pumping Information:	
Well ID	GWC-23	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.322098 L
Well Total Depth	49.72 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.52 in
Depth to Water	21.90 ft	Total Volume Pumped	4.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 10		+/- 0.2	+/- 20
Last 5	14:44:06	300.13	16.19	7.11	301.18	0.89	22.36	0.20	-88.86
Last 5	14:49:06	600.02	16.19	7.15	300.24	0.59	22.36	0.17	-92.67
Last 5	14:54:06	900.02	16.11	7.16	297.17	0.47	22.36	0.15	-93.43
Last 5									
Last 5									
Variance 0			nan	nan	nan			nan	nan
Variance 1			-0.00	0.04	-0.94			-0.03	-3.81
Variance 2			-0.08	0.01	-3.07			-0.02	-0.76

Notes

Started purge at 1434

Sample rate 250 mL/min. Weather - sunny, 48. Water - clear, no odor. No issues.

Grab Samples

GWC-23

Sample time 1459

Product Name: Low-Flow System

Date: 2017-01-31 14:55:58

Project 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	0.17 in
Site Name	Huffaker LF	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	GWA-1	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	39.53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5 in
Depth to Water	12.04 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:25:03	300.09	17.67	6.55	206.56	4.25	12.37	0.29	6.33
Last 5	14:30:02	600.03	17.14	6.59	201.19	3.87	12.43	0.24	-16.56
Last 5	14:35:02	900.02	17.01	6.58	199.35	3.76	12.46	0.22	-30.02
Last 5	14:40:02	1200.02	16.92	6.62	194.36	3.09	12.48	0.21	-39.03
Last 5	14:45:02	1500.02	16.96	6.63	190.71	1.90	12.49	0.23	-46.60
Variance 0			-0.12	-0.01	-1.85			-0.02	-13.46
Variance 1			-0.10	0.04	-4.98			-0.01	-9.01
Variance 2			0.04	0.01	-3.65			0.02	-7.56

Notes

1420 start purge at 200mL/min; 1445 all parameters stable, 1450 sampled at 200mL/min. 69F Sunny, light breeze

Grab Samples

GWA-1

Sampled at 1450

GROUNDWATER SAMPLING LOG SHEET

ERM

Client: GPC Huffaker | Project No.: 0372394 | Sampling Date: 01-31-17

Site: Plant Hammond - | Location: Coosa, GA | Sampler's Name: M. Burch

Well ID: GWA-2 | Pump Type/Model: Alexis Peri | Sample Collection Time: 1545

Total Depth (ft)[1]: 25.62 | Tubing Material: LDPE | Sample Purge Rate (mL/min)[3]: 200mL

Depth to Water (ft): 6.95 | Pump Intake Depth (ft): 20.62 | Sample ID: GWA-2

Well Diameter (in): 2 | Start/Stop Purge Time: ~~1435~~ 1445 - 1535 | Laboratory Analyses: Metals App. III & IV (EPA 6020/7470), Cl, F, SO_4 & TDS (EPA 300.0 & SM 2540C), Radium 226 & 228 (SW-846 9315/9320)

Well Volume (gal) = 0.041d²h: | Purge Rate (mL/min)[2]: 200mL/min

Well Volume (L) = gal * 3.785: | Total Purge Volume (L): 12L

d = well diameter (inches) h = length of water column (feet) | Purge Method: (Low-Flow) Well Volume Other: | QA/QC Collected? NO

Well Type: Flush (Stick Up) | Sampling Method: (Pump Discharge) Other: | QA/QC I.D. —

Well Lock: (Yes) No

Well Bolted: Yes (No) Bolts Needed: —

Well Cap Condition: (Good) Replace Other —

Well Tag Present: (Yes) No Water in Vault: Yes No

All sample containers requiring chemical preservation properly preserved prior to demob from well? Yes No

Time	Temp. (°C)	Spec. Cond. (µS/cm)	DO (mg/L)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1440	17.79	361.20	0.10	6.87	-43.40	26.6	200	1.0	7.25	Turbidity Started out
1445	17.81	361.60	0.08	6.91	-53.30	13.8	200	2.0	7.28	very high but seems to be
1450	17.81	361.50	0.07	6.93	-57.00	12.87	200	3.0	7.30	dropping - no odor at well
1455	17.72	360.00	0.07	6.94	-58.50	11.20	200	4.0	7.32	Well Seems to be in good
1500	17.72	360.80	0.06	6.95	-60.00	10.19	200	5.0	7.30	Shape.
1505	17.77	358.10	0.06	6.95	-60.80	9.52	200	6.0	7.31	
1510	17.72	358.60	0.06	6.95	-61.50	9.00	200	7.0	7.30	
1515	17.65	358.80	0.06	6.95	-60.80	8.00	200	8.0	7.30	All Stable expect Turbidity
1520	17.67	358.10	0.05	6.96	-61.40	5.32	200	9.0	7.30	but its dropping on each
1525	17.71	363.40	0.05	6.95	-63.40	4.43	200	10.0	7.32	Reading.
1530	17.66	361.10	0.05	6.96	-63.20	3.05	200	11.0	7.33	
1535	17.68	360.70	0.06	6.95	-63.10	4.03	200	12.0	7.33	
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	

(1) - Maximum purge rate of 250 mL/min

(2) - Sample rate to be between 100 mL/min and 250 mL/min

(3) - Collect sample from pump discharge without tubing contacting sample container

(4) - Field parameter measurements to be recorded every 3 to 5 minutes.

(5) - Stabilization criteria based on three most recent consecutive measurements.

(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.

(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed

(8) - Preserve all samples as appropriate immediately following collection

(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

Product Name: Low-Flow System

Date: 2017-02-01 12:56:20

Project Information:		Pump Information:	
Operator Name	W.Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	25 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWA-3	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4515856 L
Well Total Depth	21.15 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.88 in
Depth to Water	4.92 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:33:48	1799.98	17.59	6.69	834.60	1.99	5.40	1.59	39.87
Last 5	12:38:48	2099.98	17.53	6.69	825.27	2.51	5.41	1.49	36.41
Last 5	12:43:48	2399.98	17.54	6.68	825.38	2.10	5.41	1.32	32.07
Last 5	12:48:48	2699.98	17.54	6.68	824.50	0.90	5.41	1.25	29.98
Last 5	12:53:48	2999.98	17.50	6.68	823.20	1.05	5.41	1.19	26.53
Variance 0			0.02	-0.01	0.11			-0.18	-4.34
Variance 1			-0.00	-0.00	-0.88			-0.07	-2.09
Variance 2			-0.03	0.00	-1.30			-0.06	-3.44

Notes

Weather: Sunny 60F. Purge started at 12:04. Purge rate 200 ml/min
Well parameters stable at 12:54. Well sampled at 1257. Sample rate: 200 ml/min.

Grab Samples

GWA-3

Sample Time: 12:57

Product Name: Low-Flow System

Date: 2017-02-01 13:55:30

Project Information:		Pump Information:	
Operator Name	W.Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	25 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWA-4	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4515856 L
Well Total Depth	21.21 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.2 in
Depth to Water	9.70 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:32:47	300.03	17.73	6.80	829.47	1.47	9.92	0.63	31.57
Last 5	13:37:47	600.02	17.30	6.76	837.47	0.85	9.98	0.53	32.21
Last 5	13:42:47	900.02	17.36	6.73	842.67	0.98	10.01	0.44	33.03
Last 5	13:47:47	1200.02	17.37	6.72	849.24	0.31	10.03	0.56	33.26
Last 5	13:52:47	1499.99	17.41	6.70	852.52	1.05	10.05	0.56	33.68
Variance 0			0.06	-0.02	5.20			-0.09	0.81
Variance 1			0.01	-0.02	6.57			0.11	0.23
Variance 2			0.04	-0.02	3.28			0.01	0.42

Notes

Weather: Sunny ~60F. Purging started at 13:28. Purge rate: 200 ml/min
Well parameters stable at 1353. Sampled at 1357. Sample rate: 200 ml/min

Grab Samples

GWA-4

Sample Time: 1357

Product Name: Low-Flow System

Date: 2017-02-01 15:07:43

Project Information:		Pump Information:	
Operator Name	W.Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWA-11	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4962198 L
Well Total Depth	35.91 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.64 in
Depth to Water	18.73 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:45:47	300.09	18.03	6.58	204.05	5.41	18.92	0.42	9.08
Last 5	14:50:47	600.02	17.59	6.54	205.52	4.80	18.93	0.33	-1.10
Last 5	14:55:47	900.02	17.56	6.54	205.57	2.58	18.94	0.28	-6.27
Last 5	15:00:47	1200.01	17.48	6.54	205.18	2.41	18.94	0.27	-8.61
Last 5	15:05:47	1500.02	17.48	6.50	204.85	2.37	18.95	0.26	-8.90
Variance 0			-0.02	-0.00	0.05			-0.04	-5.17
Variance 1			-0.09	0.00	-0.39			-0.01	-2.34
Variance 2			0.00	-0.04	-0.33			-0.01	-0.29

Notes

Weather Sunny ~ 70F. Started purging at 1441. Purge rate: 200 ml/min
Well parameters stable at 15:06. Well sampled at 15:10. Sample rate: 200 ml/min.

Grab Samples

GWA-11

Sample Time: 1510

Product Name: Low-Flow System

Date: 2017-02-01 13:05:00

Project Information:		Pump Information:	
Operator Name	M.Burch	Pump Model/Type	Alexis Peristalic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	25 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	463453		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	15 ft

Well Information:		Pumping Information:	
Well ID	GWC-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4515856 L
Well Total Depth	21.24 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.52 in
Depth to Water	4.99 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:41:40	2100.02	16.87	6.79	668.47	4.28	5.15	1.40	-6.32
Last 5	12:46:40	2400.03	16.78	6.79	670.35	5.29	5.13	1.28	-7.58
Last 5	12:51:40	2700.02	16.74	6.79	667.06	3.41	5.13	1.20	-9.62
Last 5	12:56:40	3000.02	16.63	6.79	661.87	4.59	5.14	1.10	-12.25
Last 5	13:01:39	3299.99	16.65	6.81	658.83	4.31	5.15	1.02	-13.82
Variance 0			-0.04	-0.00	-3.29			-0.08	-2.03
Variance 1			-0.11	0.00	-5.19			-0.10	-2.63
Variance 2			0.02	0.02	-3.03			-0.08	-1.57

Notes

Started purging at 1207 at 200mL/min

Stopped purging at 1252 rate of 200mL/min

Grab Samples

GWC-5

Started sampling at 1305

Product Name: Low-Flow System

Date: 2017-02-01 14:34:51

Project Information:		Pump Information:	
Operator Name	M.Burch	Pump Model/Type	Alexis Peristalic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	AP 3&4	Tubing Length	42 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	463453		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	32.6 ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5274637 L
Well Total Depth	42.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.44 in
Depth to Water	16.41 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:09:47	300.11	18.61	6.97	479.01	2.43	16.52	0.15	-104.51
Last 5	14:14:47	600.03	18.59	7.01	477.55	2.62	16.55	0.13	-108.06
Last 5	14:19:47	899.99	18.70	7.02	477.01	1.37	16.54	0.11	-108.94
Last 5	14:24:47	1199.99	18.80	7.04	478.31	1.08	16.53	0.10	-110.24
Last 5	14:29:47	1500.00	18.92	7.05	474.63	0.80	16.53	0.09	-109.51
Variance 0			0.11	0.01	-0.55			-0.02	-0.88
Variance 1			0.10	0.03	1.30			-0.01	-1.30
Variance 2			0.12	0.01	-3.68			-0.01	0.73

Notes

Started purging at 1405 at 200mL/min. Well seems to be in Great Shape -no Odors or insects 63F/windy sunny and cloudy.
Stopped purging at 1430 at 200mL/min

Grab Samples

GWC-6

Started sampling at 1438- took sample DUB-1 from GWC-6

Product Name: Low-Flow System

Date: 2017-02-02 09:58:19

Project Information:		Pump Information:	
Operator Name	W.Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	32 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	27 ft

Well Information:		Pumping Information:	
Well ID	GWC-7	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4828295 L
Well Total Depth	31.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3.12 in
Depth to Water	16.53 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:34:44	1199.99	15.91	6.47	513.45	3.87	16.79	0.18	24.20
Last 5	09:39:44	1499.99	15.98	6.38	482.42	3.16	16.79	0.15	17.18
Last 5	09:44:44	1799.99	16.01	6.36	474.09	3.66	16.79	0.15	11.26
Last 5	09:49:44	2099.96	16.08	6.31	461.10	3.05	16.79	0.14	7.61
Last 5	09:54:44	2399.96	16.01	6.29	458.34	3.11	16.79	0.13	3.86
Variance 0			0.03	-0.02	-8.33			-0.01	-5.93
Variance 1			0.07	-0.05	-13.00			-0.01	-3.65
Variance 2			-0.07	-0.02	-2.76			-0.01	-3.74

Notes

Weather: Overcast, 50F. Started Purging at 915. Purge rate 200 ml/min.
Well parameters stable at 09:55. Well sampled at 1000. Sample rate: 200 ml/min. Extra radium volume collected.

Grab Samples

GWC-7

Sample Time: 10:00

Product Name: Low-Flow System

Date: 2017-02-02 11:40:14

Project Information:		Pump Information:	
Operator Name	W.Virgo	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	30 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	22.10 ft

Well Information:		Pumping Information:	
Well ID	GWC-8	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.4739027 L
Well Total Depth	27.10 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	13.92 in
Depth to Water	14.69 ft	Total Volume Pumped	5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:16:45	1799.95	15.89	7.47	389.91	2.65	15.72	1.42	-28.90
Last 5	11:21:45	2099.96	15.95	7.46	389.04	3.00	15.70	1.37	-30.70
Last 5	11:26:45	2399.96	16.11	7.46	386.24	2.21	15.68	1.06	-33.69
Last 5	11:31:45	2699.96	15.88	7.46	388.39	1.88	15.68	1.15	-34.66
Last 5	11:36:45	2999.96	16.16	7.45	393.16	1.34	15.68	1.14	-36.42
Variance 0			0.16	0.00	-2.80			-0.31	-2.99
Variance 1			-0.24	-0.00	2.15			0.10	-0.96
Variance 2			0.28	-0.01	4.77			-0.02	-1.76

Notes

Weather: Sunny ~50F. Started Purging at 10:46. Purge rate: 200 ml/min.
Due to excessive drawdown, purge rate was lowered to stop DTW to reach screen interval. Purge rate lowered to 100 ml/min at 1052, for the duration of Purging. Parameters stable at 1137. Well sampled at 1140. Sample rate 100 ml/min.

Grab Samples
GWC-8
Sample Time: 11:40

Product Name: Low-Flow System

Date: 2017-02-02 13:09:05

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	57 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	47 ft

Well Information:		Pumping Information:	
Well ID	GWC-9	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5944151 L
Well Total Depth	52.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3.96 in
Depth to Water	16.91 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:46:04	300.08	16.51	6.70	336.05	2.18	17.22	0.22	-62.59
Last 5	12:51:04	600.03	16.34	6.68	331.51	2.67	17.23	0.18	-73.92
Last 5	12:56:04	900.03	16.29	6.69	330.56	1.40	17.25	0.16	-80.36
Last 5	13:01:04	1200.03	16.21	6.71	330.67	2.88	17.24	0.16	-85.67
Last 5	13:06:04	1500.03	16.20	6.72	329.78	2.10	17.24	0.15	-89.49
Variance 0			-0.04	0.00	-0.95			-0.02	-6.44
Variance 1			-0.08	0.02	0.11			-0.01	-5.31
Variance 2			-0.01	0.01	-0.89			-0.01	-3.82

Notes

Started Purging at 1240 at 200mL/min

Stop purging at 1305 at 200mL/min

Grab Samples

GWC-9

Started Sampling 1310 at 200mL/min

Product Name: Low-Flow System

Date: 2017-02-02 09:57:42

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	440279		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	2 ft

Well Information:		Pumping Information:	
Well ID	GWC-10	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.3662198 L
Well Total Depth	33.99 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.12 in
Depth to Water	22.09 ft	Total Volume Pumped	3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:35:47	600.03	14.75	7.10	311.10	3.62	22.09	0.58	69.73
Last 5	09:40:47	899.99	14.94	7.19	302.35	3.42	22.10	0.56	61.47
Last 5	09:45:47	1199.99	15.03	7.19	299.12	3.08	22.10	0.50	52.49
Last 5	09:50:47	1499.99	14.90	7.19	297.27	3.00	22.10	0.52	46.80
Last 5	09:55:47	1799.99	14.90	7.19	296.35	1.13	22.10	0.55	42.71
Variance 0			0.09	-0.00	-3.22			-0.06	-8.99
Variance 1			-0.14	0.01	-1.85			0.02	-5.68
Variance 2			0.00	-0.00	-0.92			0.03	-4.10

Notes

Parameters stable

Grab Samples

GWC-10

Sampling at 10:00

Product Name: Low-Flow System

Date: 2017-02-02 14:52:51

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	51 ft

Well Information:		Pumping Information:	
Well ID	GWC-18	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6078054 L
Well Total Depth	56.95 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	19.8 in
Depth to Water	13.17 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:30:01	600.03	16.05	7.62	368.64	0.79	14.79	0.92	-40.07
Last 5	14:35:01	900.02	15.93	7.63	361.73	2.56	14.75	1.48	-38.81
Last 5	14:40:01	1199.99	16.12	7.63	355.60	0.60	14.75	0.60	-38.92
Last 5	14:45:03	1501.99	16.02	7.63	354.37	1.07	14.79	0.62	-38.27
Last 5	14:50:03	1801.99	16.02	7.64	352.32	1.35	14.82	0.55	-37.45
Variance 0			0.18	0.01	-6.13			-0.88	-0.10
Variance 1			-0.09	-0.00	-1.23			0.02	0.64
Variance 2			-0.00	0.00	-2.04			-0.08	0.83

Notes

Started Purging at 1420 at 200mL/min

Stop purging at 1450 at 200mL/min

Grab Samples

GWC-18

Started Sample at 1455 at 200mL/min

Product Name: Low-Flow System

Date: 2017-02-02 11:57:46

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	440279		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	2 ft

Well Information:		Pumping Information:	
Well ID	GWC-19	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4778054 L
Well Total Depth	57.21 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.8 in
Depth to Water	19.65 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:40:33	300.10	15.89	7.50	405.45	3.28	19.96	0.58	72.59
Last 5	11:45:33	600.03	16.22	7.46	404.52	3.16	19.98	0.28	62.26
Last 5	11:50:33	900.03	16.28	7.44	407.46	2.77	20.03	0.26	57.17
Last 5	11:55:33	1200.03	16.30	7.43	403.24	4.79	20.05	0.19	53.09
Last 5									
Variance 0			0.34	-0.03	-0.93			-0.30	-10.33
Variance 1			0.05	-0.02	2.94			-0.01	-5.09
Variance 2			0.02	-0.01	-4.21			-0.07	-4.08

Notes

Parameters stable. Weather: cloudy, 50's.

Grab Samples

GWC-19

Sampling at 1201

Product Name: Low-Flow System

Date: 2017-02-03 09:53:16

Project Information:		Pump Information:	
Operator Name	M.Burch	Pump Model/Type	Alexis Peristalic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	463453		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-20	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5185369 L
Well Total Depth	34.06 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	11.16 in
Depth to Water	5.37 ft	Total Volume Pumped	13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:30:38	3299.98	14.91	7.35	351.68	6.10	6.35	0.09	-119.68
Last 5	09:35:38	3599.99	14.85	7.35	355.10	6.30	6.36	0.37	-118.38
Last 5	09:40:38	3899.98	14.92	7.35	355.00	4.85	6.30	0.21	-120.32
Last 5	09:45:38	4199.94	14.90	7.37	354.20	4.86	6.30	0.14	-121.50
Last 5	09:50:38	4499.94	14.80	7.37	355.36	4.53	6.30	0.10	-123.14
Variance 0			0.07	0.01	-0.10			-0.16	-1.94
Variance 1			-0.03	0.01	-0.80			-0.07	-1.18
Variance 2			-0.09	0.00	1.16			-0.03	-1.63

Notes

Started purging at 0835 at 200mL/min
Finished Purging at 0950 at 100mL/min due to high turbidity

Grab Samples

GWC-20

Started sampling at 0955 at 100mL/min

Product Name: Low-Flow System

Date: 2017-02-02 13:45:56

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	19 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	440279		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	2 ft

Well Information:		Pumping Information:	
Well ID	GWC-21	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.294805 L
Well Total Depth	17.93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.52 in
Depth to Water	5.02 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:23:18	1799.89	13.17	7.07	356.55	2.00	5.23	2.20	46.95
Last 5	13:28:19	2100.89	13.14	7.00	346.93	1.27	5.23	2.07	48.33
Last 5	13:33:19	2400.89	13.04	6.96	317.09	1.24	5.23	1.77	46.88
Last 5	13:38:21	2702.89	12.98	6.91	306.87	1.19	5.23	1.65	47.19
Last 5	13:43:21	3002.89	12.90	6.86	308.61	1.07	5.23	1.65	48.85
Variance 0			-0.10	-0.04	-29.84			-0.30	-1.45
Variance 1			-0.06	-0.05	-10.22			-0.12	0.31
Variance 2			-0.08	-0.05	1.75			0.00	1.66

Notes

Parameters stable. Weather:cloudy, 50's

Grab Samples

GWC-21

Sampling at 1348

Product Name: Low-Flow System

Date: 2017-02-02 15:09:51

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	44 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	440279		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	2 ft

Well Information:		Pumping Information:	
Well ID	GWC-22	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4063906 L
Well Total Depth	41.75 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	10.44 in
Depth to Water	3.05 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:46:43	300.10	14.61	7.18	0.00	--	--	9.56	69.89
Last 5	14:51:43	600.03	14.40	7.41	374.56	4.15	3.69	0.37	54.94
Last 5	14:56:43	900.03	14.67	7.50	372.05	3.09	3.88	0.23	45.50
Last 5	15:01:43	1200.02	14.72	7.54	370.16	2.97	3.90	0.21	40.31
Last 5	15:06:43	1500.03	14.67	7.56	369.05	2.47	3.92	0.20	35.90
Variance 0			0.27	0.09	-2.51			-0.15	-9.44
Variance 1			0.04	0.03	-1.89			-0.02	-5.19
Variance 2			-0.05	0.02	-1.11			-0.00	-4.42

Notes

Parameters stable. Weather:cloudy 50's

Grab Samples

GWC-22

Sampling at 1511

Product Name: Low-Flow System

Date: 2017-02-03 09:30:58

Project Information:		Pump Information:	
Operator Name	Myles Rogers	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	52 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	449622		
Turbidity Make/Model	LaMotte 2020We	Pump placement from TOC	2 ft

Well Information:		Pumping Information:	
Well ID	GWC-23	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.442098 L
Well Total Depth	49.72 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	26.44 in
Depth to Water	18.74 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:07:47	1499.99	13.40	7.27	472.78	10.49	19.01	2.18	44.18
Last 5	09:12:47	1799.99	13.49	7.26	469.70	6.72	19.01	1.99	36.44
Last 5	09:17:47	2099.99	13.41	7.26	459.90	4.90	19.01	1.83	27.62
Last 5	09:22:47	2399.99	13.31	7.25	462.45	4.24	19.01	1.75	19.16
Last 5	09:27:55	2707.99	13.22	7.27	465.09	4.59	19.01	1.69	12.04
Variance 0			-0.09	-0.00	-9.80			-0.17	-8.82
Variance 1			-0.10	-0.01	2.54			-0.08	-8.46
Variance 2			-0.09	0.02	2.65			-0.06	-7.13

Notes

Parameters stable. Weather: cloudy 50's

Grab Samples

GWC-23

Sampling at 0930

Product Name: Low-Flow System

Date: 2017-03-23 12:50:09

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Dedicated Bladder
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Plant Hammond	Tubing Diameter	0.375 in
Site Name	Huffaker LF	Tubing Length	44 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	501336		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	34 ft

Well Information:		Pumping Information:	
Well ID	GWA-1	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.44062 L
Well Total Depth	39.53 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.8 in
Depth to Water	11.33 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:27:24	900.02	16.14	7.16	173.73	1.78	11.80	1.26	-77.38
Last 5	12:32:24	1200.02	16.19	7.14	167.79	1.58	11.80	1.14	-83.39
Last 5	12:37:24	1500.02	16.25	7.14	167.37	1.27	11.80	0.95	-87.16
Last 5	12:42:24	1800.02	16.23	7.12	162.79	1.61	11.82	0.99	-86.67
Last 5	12:47:23	2099.98	16.37	7.12	159.79	1.33	11.82	0.89	-87.29
Variance 0			0.05	-0.00	-0.42			-0.19	-3.77
Variance 1			-0.02	-0.02	-4.58			0.04	0.49
Variance 2			0.14	0.00	-3.00			-0.10	-0.62

Notes

Starting Purge at 1212 at 200mL/min

Finish Purging at 1247 at 200mL/min

Grab Samples

GWA-1

Grabbed Sample at 1252 at 200mL/min

Product Name: Low-Flow System

Date: 2017-03-23 14:11:57

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Dedicated Bladder
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Plant Hammond	Tubing Diameter	0.375 in
Site Name	Huffaker LF	Tubing Length	30 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	501336		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	20 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.136559 L
Well Total Depth	25.62 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	6.84 in
Depth to Water	6.41 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:50:01	300.10	17.42	7.03	358.62	12.70	6.91	0.15	-69.26
Last 5	13:55:00	600.02	17.21	7.04	359.26	7.29	6.99	0.12	-64.20
Last 5	14:00:00	900.03	17.09	7.04	359.61	2.04	6.99	0.10	-63.21
Last 5	14:05:00	1200.02	17.18	7.04	359.45	1.99	6.98	0.10	-63.63
Last 5	14:10:00	1500.03	17.31	7.04	358.95	1.44	6.98	0.09	-64.72
Variance 0			-0.12	0.00	0.35			-0.01	0.99
Variance 1			0.09	0.00	-0.16			-0.01	-0.42
Variance 2			0.14	-0.00	-0.50			-0.01	-1.09

Notes

Starting Purge at 1345 at 200mL/min
Finish Purging at 1410 at 200mL/min

Grab Samples

GWA-2

Grabbed Sample at 1415 at 200mL/min

Product Name: Low-Flow System

Date: 2017-03-23 15:33:07

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Dedicated Bladder
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Plant Hammond	Tubing Diameter	0.375 in
Site Name	Huffaker LF	Tubing Length	26 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	501336		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWA-3	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.049685 L
Well Total Depth	21.15 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.64 in
Depth to Water	4.85 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	15:09:02	900.03	17.98	6.87	807.05	8.82	5.37	0.67	-0.65
Last 5	15:14:02	1199.99	17.98	6.85	805.87	6.06	5.40	0.26	-5.63
Last 5	15:19:02	1500.00	18.07	6.83	798.22	4.98	5.40	0.22	-7.97
Last 5	15:24:02	1799.99	17.99	6.81	799.81	4.60	5.40	0.20	-9.79
Last 5	15:29:02	2099.99	18.02	6.80	797.56	4.63	5.40	0.20	-11.54
Variance 0			0.08	-0.02	-7.64			-0.04	-2.34
Variance 1			-0.08	-0.02	1.59			-0.02	-1.82
Variance 2			0.03	-0.01	-2.25			-0.01	-1.75

Notes

Starting Purge at 1454 at 200mL/min

Finish Purging at 1529 at 200mL/min

Grab Samples

GWA-3

Grabbed Sample at 1534 at 200mL/min

Product Name: Low-Flow System

Date: 2017-03-24 09:23:54

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Dedicated Bladder
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Plant Hammond	Tubing Diameter	0.375 in
Site Name	Huffaker LF	Tubing Length	25 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	501336		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	15 ft

Well Information:		Pumping Information:	
Well ID	GWA-4	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.027966 L
Well Total Depth	21.21 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.8 in
Depth to Water	9.26 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:02:11	300.05	15.47	6.86	787.55	13.00	9.55	0.75	42.08
Last 5	09:07:11	600.03	15.36	6.83	794.93	8.82	9.63	0.78	18.92
Last 5	09:12:11	900.03	15.30	6.82	791.54	2.85	9.65	0.70	12.90
Last 5	09:17:11	1200.02	15.25	6.78	798.82	2.96	9.70	0.65	11.73
Last 5	09:22:11	1500.03	15.28	6.77	810.79	2.41	9.75	0.58	10.81
Variance 0			-0.06	-0.01	-3.38			-0.08	-6.02
Variance 1			-0.04	-0.04	7.27			-0.05	-1.18
Variance 2			0.03	-0.00	11.97			-0.08	-0.92

Notes

Starting Purge at 0857 at 200mL/min
Finish Purging at 0922 at 200mL/min

Grab Samples

GWA-4

Grabbed Sample at 0927 at 200mL/min

Product Name: Low-Flow System

Date: 2017-03-24 10:57:32

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Dedicated Bladder
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Plant Hammond	Tubing Diameter	0.375 in
Site Name	Huffaker LF	Tubing Length	40 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	501336		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	30 ft

Well Information:		Pumping Information:	
Well ID	GWA-11	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.353746 L
Well Total Depth	35.91 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.2 in
Depth to Water	16.11 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:35:05	2099.94	16.04	6.75	192.89	7.59	16.46	0.16	-20.51
Last 5	10:40:05	2399.94	16.04	6.75	192.14	5.20	16.46	0.15	-17.82
Last 5	10:45:05	2699.94	16.14	6.73	190.92	4.50	16.46	0.14	-22.05
Last 5	10:50:05	2999.94	16.20	6.73	191.82	3.45	16.46	0.14	-23.44
Last 5	10:55:05	3299.94	16.19	6.72	192.51	3.11	16.46	0.15	-23.52
Variance 0			0.10	-0.02	-1.22			-0.01	-4.23
Variance 1			0.06	-0.01	0.90			0.01	-1.40
Variance 2			-0.01	-0.01	0.70			0.01	-0.08

Notes

Starting Purge at 1000 at 200mL/min
Finish Purging at 1055 at 200mL/min

Grab Samples

GWA-11

Grabbed Sample at 1100 at 200mL/min

Product Name: Low-Flow System

Date: 2017-03-23 14:00:09

Project Information:		Pump Information:	
Operator Name	T.Thomas	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	15 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020 We	Pump placement from TOC	15 ft

Well Information:		Pumping Information:	
Well ID	GWC-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4069514 L
Well Total Depth	21.24 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.2 in
Depth to Water	4.49 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:36:01	1200.02	17.55	6.80	678.71	5.24	4.59	0.08	-11.53
Last 5	13:41:01	1500.02	17.70	6.81	676.05	4.64	4.59	0.07	-15.09
Last 5	13:46:01	1800.02	17.50	6.81	674.68	3.71	4.59	0.07	-16.87
Last 5	13:51:01	2100.02	17.72	6.81	673.81	3.83	4.59	0.07	-19.20
Last 5	13:56:01	2399.97	17.67	6.80	674.76	3.12	4.59	0.06	-21.56
Variance 0			-0.20	0.01	-1.36			-0.01	-1.78
Variance 1			0.22	-0.01	-0.87			-0.00	-2.33
Variance 2			-0.05	-0.01	0.95			-0.00	-2.36

Notes

Weather- partly cloudy 55F. Purge started at 1316. Purge rate at 200 ml/min.
Parameters stable at 1356. Purge rate at 200 ml/min. Well sampled at 1400. Sample rate at 200 ml/min.

Grab Samples

GWC-5

Well sampled at 1400

Product Name: Low-Flow System

Date: 2017-03-23 15:09:00

Project Information:		Pump Information:	
Operator Name	T.Thomas	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	43 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020 We	Pump placement from TOC	38 ft

Well Information:		Pumping Information:	
Well ID	GWC-6	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5319272 L
Well Total Depth	42.60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.32 in
Depth to Water	15.39 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:45:23	300.03	18.65	6.98	478.27	4.20	15.49	0.24	-62.04
Last 5	14:50:23	600.02	18.60	6.96	480.52	3.23	15.49	0.16	-71.25
Last 5	14:55:23	899.99	18.70	6.96	481.94	2.03	15.49	0.15	-74.94
Last 5	15:00:23	1200.00	18.70	6.97	480.55	1.87	15.50	0.13	-78.59
Last 5	15:05:23	1500.00	18.39	6.97	484.63	1.60	15.50	0.15	-82.43
Variance 0			0.10	0.00	1.43			-0.01	-3.69
Variance 1			-0.00	0.01	-1.39			-0.01	-3.65
Variance 2			-0.31	0.00	4.08			0.01	-3.84

Notes

Weather- sunny partly cloudy 60F. Purge rate 200 ml/min. Purge started at 2:40
Parameters stable at 1505. Purge rate 200 ml/min. Well sampled at 1508. Sample rate at 200 ml/min.

Grab Samples

GWC-6

Well sampled at 1508

Product Name: Low-Flow System

Date: 2017-03-24 09:38:29

Project Information:		Pump Information:	
Operator Name	T.Thomas	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020 We	Pump placement from TOC	27 ft

Well Information:		Pumping Information:	
Well ID	GWC-7	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5051467 L
Well Total Depth	31.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.88 in
Depth to Water	14.97 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:14:01	1200.03	16.33	6.37	476.64	7.62	15.20	0.30	27.86
Last 5	09:19:01	1500.02	16.31	6.35	472.51	4.29	15.20	0.17	20.11
Last 5	09:24:01	1800.02	16.33	6.33	468.65	3.78	15.21	0.21	13.63
Last 5	09:29:01	2100.02	16.32	6.32	464.49	3.72	15.21	0.14	10.08
Last 5	09:34:01	2400.01	16.33	6.32	462.45	3.82	15.21	0.15	7.01
Variance 0			0.02	-0.02	-3.86			0.04	-6.49
Variance 1			-0.01	-0.01	-4.16			-0.06	-3.55
Variance 2			0.01	-0.01	-2.04			0.01	-3.07

Notes

Weather- cloudy, 55F. Purge started at 08:54. Purge rate 200 ml/min
Parameters stable at 09:34. Turbidity readings started off very high due to biological activity in the water-orange particles. Turbidity readings below 5 NTU at 09:19. Turbidity stable at 0929. Well sampled at 09:38. Sample rate at 200 ml/min.

Grab Samples
GWC-7
Well sampled at 09:38

Product Name: Low-Flow System

Date: 2017-03-24 11:03:25

Project Information:		Pump Information:	
Operator Name	T.Thomas	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	32 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020 We	Pump placement from TOC	22 ft

Well Information:		Pumping Information:	
Well ID	GWC-8	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4828295 L
Well Total Depth	27.10 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	22.08 in
Depth to Water	12.38 ft	Total Volume Pumped	5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	10:40:01	1200.03	16.47	7.23	490.38	1.37	14.22	1.18	-13.58
Last 5	10:45:01	1500.03	16.56	7.25	476.73	1.35	14.04	0.98	-15.68
Last 5	10:50:01	1800.02	16.67	7.25	470.01	1.30	13.89	0.83	-17.76
Last 5	10:55:01	2099.99	16.76	7.27	453.12	1.25	13.82	0.71	-20.57
Last 5	11:00:02	2400.99	16.87	7.28	448.09	1.14	13.80	0.65	-22.51
Variance 0			0.11	0.01	-6.72			-0.15	-2.08
Variance 1			0.09	0.02	-16.89			-0.12	-2.81
Variance 2			0.11	0.01	-5.03			-0.06	-1.94

Notes

Weather- cloudy 60F. Purge rate set at 200 ml/min. Purge started at 10:20.
Purge rate started at 200 ml/min. Due to well draw down rate the purge rate was updated to 100 ml/min at 10:40. Parameters stable at 11:00. Well sampled at 11:05. Well sample rate at 100 ml/min.

Grab Samples
GWC-8
Well sampled at 11:05

Product Name: Low-Flow System

Date: 2017-03-27 09:48:43

Project Information:		Pump Information:	
Operator Name	T.Thomas	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	62.05 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020 We	Pump placement from TOC	47 ft

Well Information:		Pumping Information:	
Well ID	GWC-9	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6169555 L
Well Total Depth	52.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.2 in
Depth to Water	14.50 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:25:01	300.13	17.19	6.40	318.11	0.90	14.40	0.32	-2.17
Last 5	09:30:01	600.03	17.27	6.49	331.58	1.05	14.41	0.23	-23.15
Last 5	09:40:01	1200.03	17.54	6.54	332.31	0.76	14.42	0.20	-45.82
Last 5	09:45:01	1500.03	17.83	6.56	331.40	0.97	14.42	0.16	-52.28
Last 5									
Variance 0			0.09	0.09	13.46			-0.10	-20.98
Variance 1			0.27	0.06	0.74			-0.03	-22.67
Variance 2			0.29	0.01	-0.92			-0.03	-6.46

Notes

Weather- cloudy 65F. Purge rate at 200 ml/min. Purge started at 09:20.
Parameters stable at 09:45. SmarTROLL skipped a reading at 09:35. Purge rate 200 ml/min. Well sampled at 09:50. Sample rate at 200 ml/min.

Grab Samples

Product Name: Low-Flow System

Date: 2017-03-27 09:53:45

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Dedicated Bladder
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Plant Hammond	Tubing Diameter	0.375 in
Site Name	Huffaker LF	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	501336		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	28 ft

Well Information:		Pumping Information:	
Well ID	GWC-10	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.310309 L
Well Total Depth	33.99 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.72 in
Depth to Water	14.43 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	09:30:07	300.10	16.75	7.47	375.17	38.30	15.48	0.30	-93.51
Last 5	09:35:07	600.03	16.66	7.48	369.98	3.20	15.49	0.24	-97.88
Last 5	09:40:07	900.02	17.06	7.48	367.14	1.34	15.49	0.23	-102.84
Last 5	09:45:07	1200.03	17.23	7.47	364.61	1.20	15.49	0.22	-103.70
Last 5	09:50:07	1500.03	17.34	7.48	361.78	1.37	15.49	0.20	-104.50
Variance 0			0.40	-0.00	-2.84			-0.01	-4.97
Variance 1			0.17	-0.01	-2.53			-0.01	-0.85
Variance 2			0.11	0.01	-2.82			-0.02	-0.80

Notes

Starting Purge at 0925 at 200mL/min
Finish Purging at 0950 at 200mL/min

Grab Samples

GWC-10

Grabbed Sample at 0955 at 200mL/min

Product Name: Low-Flow System

Date: 2017-03-27 11:31:16

Project Information:		Pump Information:	
Operator Name	T.Thomas	Pump Model/Type	Alexis Peristaltic Pump
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Plant Hammond	Tubing Diameter	0.175 in
Site Name	Huffaker LF	Tubing Length	66 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	51 ft

Well Information:		Pumping Information:	
Well ID	GWC-18	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.7771693 L
Well Total Depth	56.65 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	15.24 in
Depth to Water	12.78 ft	Total Volume Pumped	4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:10:02	300.04	19.05	7.47	362.79	1.47	13.78	1.85	-73.52
Last 5	11:15:02	600.02	18.83	7.55	364.70	0.77	13.97	1.79	-72.57
Last 5	11:20:02	900.03	18.74	7.58	363.65	0.64	14.02	1.78	-69.71
Last 5	11:25:02	1200.03	18.88	7.59	362.14	0.77	14.05	1.70	-66.77
Last 5									
Variance 0			-0.22	0.08	1.91			-0.06	0.95
Variance 1			-0.09	0.03	-1.05			-0.01	2.86
Variance 2			0.13	0.02	-1.51			-0.08	2.94

Notes

Weather- cloudy, 65F. Purge rate at 200 ml/min. Purge started at 11:05.
Parameters stable at 11:25. Purge rate at 200 ml/min. Well sampled at 11:30. Sample rate at 200 ml/min. Duplicate sample taken - DUP-2.

Grab Samples

GWC-18

Well sampled at 11:30

DUP-2

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Product Name: Low-Flow System

Date: 2017-03-27 11:32:24

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	57 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	501336		
Turbidity Make/Model	LaMotte 2020 We	Pump placement from TOC	52 ft

Well Information:		Pumping Information:	
Well ID	GWC-19	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5944151 L
Well Total Depth	57.20 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	5.52 in
Depth to Water	18.89 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:08:08	300.09	18.43	7.56	387.59	0.89	19.29	1.02	-74.65
Last 5	11:13:08	600.03	17.98	7.55	386.41	0.97	19.32	0.55	-102.42
Last 5	11:18:08	900.02	17.93	7.55	400.16	0.63	19.32	0.35	-105.10
Last 5	11:23:08	1200.03	17.86	7.54	401.36	0.86	19.35	0.29	-105.85
Last 5	11:28:08	1500.02	17.95	7.53	399.38	1.76	19.35	0.25	-106.70
Variance 0			-0.05	0.01	13.75			-0.20	-2.68
Variance 1			-0.07	-0.01	1.20			-0.06	-0.75
Variance 2			0.10	-0.02	-1.98			-0.04	-0.85

Notes

Started purging at 1103 at 200mL/min
Finished purging at 1128 at 200mL/min

Grab Samples

GWC-19

Grabbed Sample at 1138 at 200mL/min

Product Name: Low-Flow System

Date: 2017-03-27 13:46:23

Project Information:		Pump Information:	
Operator Name	T.Thomas	Pump Model/Type	Alexis Peristaltic Pump
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Plant Hammond	Tubing Diameter	0.175 in
Site Name	Huffaker LF	Tubing Length	44 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-20	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6931129 L
Well Total Depth	34.06 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	10.56 in
Depth to Water	3.93 ft	Total Volume Pumped	13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:22:07	2699.91	17.13	7.27	366.12	6.34	4.81	0.07	-83.79
Last 5	13:27:07	2999.91	17.19	7.27	365.70	5.85	4.81	0.07	-86.84
Last 5	13:32:07	3299.91	17.28	7.26	366.17	4.86	4.81	0.10	-89.45
Last 5	13:37:07	3599.91	17.19	7.26	368.72	4.73	4.81	0.08	-93.08
Last 5	13:42:07	3899.91	17.10	7.26	369.48	4.81	4.81	0.07	-96.26
Variance 0			0.10	-0.01	0.46			0.04	-2.61
Variance 1			-0.09	-0.01	2.55			-0.03	-3.63
Variance 2			-0.10	0.00	0.76			-0.00	-3.18

Notes

Weather- cloudy 70F. Purge rate at 200 ml/min. Purge started at 12:37

Parameters stable at 13:42. Purge rate at 200 ml/min. Turbidity levels were above 5 NTU until 13:32. Well sampled at 13:45. Sample rate at 200 ml/min.

Grab Samples
GWC-20
Well sampled at 13:45

Product Name: Low-Flow System

Date: 2017-03-27 13:54:33

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	20 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	501336		
Turbidity Make/Model	LaMotte 2020 We	Pump placement from TOC	15 ft

Well Information:		Pumping Information:	
Well ID	GWC-21	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4292684 L
Well Total Depth	17.93 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3.36 in
Depth to Water	4.73 ft	Total Volume Pumped	15 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	13:32:08	3299.94	15.33	6.50	184.64	0.95	5.01	0.56	37.75
Last 5	13:37:08	3599.94	15.38	6.45	175.29	0.96	5.01	0.55	40.02
Last 5	13:42:08	3899.94	15.30	6.50	186.22	1.06	5.01	0.57	37.96
Last 5	13:47:08	4199.94	15.29	6.49	185.02	1.32	5.01	0.57	38.39
Last 5	13:52:08	4499.94	15.36	6.51	190.27	0.97	5.01	0.57	37.58
Variance 0			-0.09	0.05	10.92			0.02	-2.06
Variance 1			-0.00	-0.01	-1.20			-0.00	0.43
Variance 2			0.07	0.01	5.25			0.00	-0.81

Notes

Started purging at 1237 at 200mL/min
Finished Purging at 1352 at 200mL/min

Grab Samples

GWC-21

Grabbed Sample at 1357 at 200mL/min

Product Name: Low-Flow System

Date: 2017-03-27 14:51:59

Project Information:		Pump Information:	
Operator Name	M. Burch	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC - Plant Hammond	Tubing Diameter	0.17 in
Site Name	Huffaker LF	Tubing Length	46 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	501336		
Turbidity Make/Model	LaMotte 2020 We	Pump placement from TOC	36 ft

Well Information:		Pumping Information:	
Well ID	GWC-22	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5453175 L
Well Total Depth	41.75 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	14.88 in
Depth to Water	2.01 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:30:17	300.10	17.78	7.64	355.54	4.15	3.01	0.17	-44.59
Last 5	14:35:17	600.03	17.61	7.65	354.79	3.95	3.11	0.14	-75.83
Last 5	14:40:17	900.02	17.63	7.69	354.34	2.58	3.17	0.12	-120.98
Last 5	14:45:17	1200.03	17.54	7.70	350.56	2.18	3.23	0.11	-127.47
Last 5	14:50:17	1500.02	17.56	7.69	347.49	2.64	3.25	0.11	-130.88
Variance 0			0.02	0.05	-0.45			-0.02	-45.15
Variance 1			-0.08	0.01	-3.78			-0.01	-6.48
Variance 2			0.01	-0.01	-3.07			-0.01	-3.41

Notes

Started purging at 1425 at 200mL/min
Finished Purging at 1450 at 200mL/min

Grab Samples

GWC-22

Grabbed Sample at 1455 at 200mL/min

Product Name: Low-Flow System

Date: 2017-03-27 15:02:29

Project Information:		Pump Information:	
Operator Name	T.Thomas	Pump Model/Type	Dedicated Bladder
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC-Plant Hammond	Tubing Diameter	0.175 in
Site Name	Huffaker LF	Tubing Length	54.72 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	457516		
Turbidity Make/Model	LaMotte 2020we	Pump placement from TOC	44.72 ft

Well Information:		Pumping Information:	
Well ID	GWC-23	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.7438168 L
Well Total Depth	49.72 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.56 in
Depth to Water	9.85 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:40:02	600.03	18.06	7.33	494.99	1.44	10.23	2.04	-15.78
Last 5	14:45:02	900.02	18.08	7.28	482.07	1.29	10.23	1.70	-17.80
Last 5	14:50:02	1200.02	18.03	7.26	478.10	1.60	10.23	1.60	-16.89
Last 5	14:55:02	1500.03	18.02	7.25	468.34	1.44	10.23	1.47	-17.24
Last 5	15:00:02	1800.02	18.12	7.24	461.41	1.56	10.23	1.46	-16.71
Variance 0			-0.05	-0.02	-3.98			-0.10	0.91
Variance 1			-0.02	-0.01	-9.76			-0.13	-0.35
Variance 2			0.11	-0.01	-6.93			-0.01	0.53

Notes

Weather- cloudy 70F. Purge rate 200 ml/min. Purge started at 14:30.
Parameters stable at 15:00. Purge rate at 200 ml/min. Well sampled at 15:05. Sample rate at 200 ml/min.

Grab Samples

GWC-23

Well sampled at 15:05

Product Name: Low-Flow System

Date: 2016-09-07 12:08:53

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd	Tubing Diameter	0.17 in
Site Name	GPC - Hammond	Tubing Length	43 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna 98703	Pump placement from TOC	35 ft

Well Information:		Pumping Information:	
Well ID	GWA-1	Final Pumping Rate	230 mL/min
Well diameter	2 in	Total System Volume	0.2819272 L
Well Total Depth	39.53 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	4.8 in
Depth to Water	19.88 ft	Total Volume Pumped	5.06 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	11:54:44	180.14	18.97	7.31	174.20	1.96	20.22	0.21	4.35
Last 5	11:57:44	360.02	18.74	7.31	172.26	1.69	20.24	0.18	-23.53
Last 5	12:00:44	540.02	18.77	7.29	168.11	1.06	20.25	0.16	-55.09
Last 5	12:03:44	720.03	18.70	7.26	163.70	1.47	20.26	0.14	-70.24
Last 5	12:06:44	900.02	18.75	7.24	160.78	1.20	20.28	0.13	-74.65
Variance 0			0.03	-0.03	-4.14			-0.02	-31.56
Variance 1			-0.07	-0.02	-4.41			-0.02	-15.15
Variance 2			0.05	-0.02	-2.92			-0.01	-4.41

Notes

Started pumping at 1144

Grab Samples

GWA-1

Sample time 1210

Product Name: Low-Flow System

Date: 2016-09-07 13:05:18

Project Information:		Pump Information:	
Operator Name	Markevious Thomas	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	.17 in
Site Name	GPC- Hammond	Tubing Length	33 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444108		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	20.62 ft

Well Information:		Pumping Information:	
Well ID	GWA-2	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.237293 L
Well Total Depth	25.62 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	3 in
Depth to Water	11.21 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	12:40:26	300.14	25.65	6.83	408.90	1.50	11.42	0.34	-82.09
Last 5	12:45:26	600.02	23.88	6.85	415.80	3.16	11.45	0.17	-79.83
Last 5	12:50:26	900.02	23.23	6.86	420.31	2.32	11.47	0.14	-78.25
Last 5	12:55:26	1200.02	23.25	6.86	414.29	1.84	11.47	0.12	-77.06
Last 5	13:00:26	1500.02	22.64	6.86	416.50	1.04	11.48	0.11	-74.36
Variance 0			-0.65	0.01	4.51			-0.03	1.58
Variance 1			0.02	0.01	-6.02			-0.03	1.18
Variance 2			-0.61	-0.00	2.21			-0.01	2.71

Notes

1235 Start purge@200mL/min, 1300 all parameters stable, 1305 sampled@200mL/min

Grab Samples

GWA-2

Sampled at 1305

Product Name: Low-Flow System

Date: 2016-09-07 12:36:39

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Pegasus Peristaltc
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC	Tubing Diameter	0.17 in
Site Name	Plant Hammond	Tubing Length	25 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWA-3	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.4515856 L
Well Total Depth	21.21 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.32 in
Depth to Water	8.97 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5%		+/- 0.2	+/- 100
Last 5	12:13:49	300.10	25.92	6.88	736.04	1.30	9.27	0.19	-97.19
Last 5	12:18:49	600.02	25.55	6.87	734.82	0.77	9.29	0.13	-91.45
Last 5	12:23:49	900.02	25.51	6.85	721.60	0.56	9.31	0.10	-84.52
Last 5	12:28:49	1200.02	25.42	6.83	719.24	0.36	9.32	0.09	-78.47
Last 5	12:33:49	1500.02	24.93	6.81	714.93	0.38	9.33	0.09	-72.43
Variance 0			-0.05	-0.02	-13.22			-0.04	6.93
Variance 1			-0.09	-0.02	-2.36			-0.00	6.05
Variance 2			-0.49	-0.02	-4.31			-0.00	6.04

Notes

Purge started at 1208 @ 200 ml/min

Well parameters stable @ 1232. Well sampled at 1237 @ 200 ml/min

Grab Samples

GWA-3

Sample Time: 1237

Product Name: Low-Flow System

Date: 2016-09-07 13:53:07

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Pegasus Peristaltc
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC	Tubing Diameter	0.17 in
Site Name	Plant Hammond	Tubing Length	27 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	16 ft

Well Information:		Pumping Information:	
Well ID	GWA-4	Final Pumping Rate	500 mL/min
Well diameter	2 in	Total System Volume	0.4605124 L
Well Total Depth	21.21 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	14.52 in
Depth to Water	13.81 ft	Total Volume Pumped	18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5%		+/- 0.2	+/- 100
Last 5	13:29:52	1500.02	21.16	6.75	801.73	1.55	14.97	0.12	-28.99
Last 5	13:34:52	1800.02	21.09	6.76	796.54	0.99	15.02	0.15	-31.29
Last 5	13:39:52	2100.05	21.84	6.76	789.25	0.61	14.69	0.14	-32.91
Last 5	13:44:52	2400.04	22.25	6.74	774.43	0.80	14.54	0.13	-34.52
Last 5	13:49:52	2700.02	23.29	6.72	772.41	1.01	14.49	0.13	-34.85
Variance 0			0.75	0.00	-7.29			-0.01	-1.62
Variance 1			0.41	-0.03	-14.82			-0.01	-1.61
Variance 2			1.04	-0.02	-2.02			-0.00	-0.34

Notes

Water level started within screen interval. 3 well volume method used. Purge rate started at 500 ml/min. Purge started at 1304 Purge rate decreased @ 1334 after well volumes complete to 200 ml/min. Stable at 1349, sample at 1354 at rate of 200 ml/min.

Grab Samples

GWA-4

Sample time: 1354

Product Name: Low-Flow System

Date: 2016-09-07 13:15:32

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd	Tubing Diameter	0.17 in
Site Name	GPC - Hammond	Tubing Length	38 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna 98703	Pump placement from TOC	31 ft

Well Information:		Pumping Information:	
Well ID	GWA-11	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2596101 L
Well Total Depth	35.91 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	2.64 in
Depth to Water	22.15 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	13:00:48	360.02	18.74	6.89	184.00	8.00	22.37	0.18	-20.06
Last 5	13:03:48	540.02	18.48	6.87	184.00	5.28	22.37	0.15	-18.46
Last 5	13:06:48	720.02	18.34	6.87	185.54	3.94	22.37	0.13	-17.73
Last 5	13:09:48	900.02	18.36	6.84	184.71	3.39	22.37	0.12	-17.48
Last 5	13:12:48	1080.02	18.26	6.83	184.69	2.90	22.37	0.11	-16.79
Variance 0			-0.14	-0.01	1.53			-0.02	0.73
Variance 1			0.02	-0.03	-0.83			-0.01	0.26
Variance 2			-0.10	-0.01	-0.02			-0.01	0.69

Notes

Started purge at 1252

Clear, no odor; occasional light tan floaters. Sample rate 250 mL/min. No issues. DUP-1 here.

Grab Samples

GWA-11

Sample time 1317

DUP-1

Sample time 1317

Product Name: Low-Flow System

Date: 2016-09-07 14:48:54

Project Information:		Pump Information:	
Operator Name	Markevious Thomas	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	.17 in
Site Name	GPC- Hammond	Tubing Length	30 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444108		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	16.24 ft

Well Information:		Pumping Information:	
Well ID	GWC-5	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.2239027 L
Well Total Depth	21.24 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	7.7 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:22:49	300.08	26.42	6.95	597.68	0.85	7.80	0.18	-82.04
Last 5	14:27:49	600.02	26.06	6.95	595.48	0.98	7.80	0.13	-80.03
Last 5	14:32:49	900.02	26.14	6.95	596.11	0.75	7.81	0.11	-80.45
Last 5	14:37:49	1200.02	26.49	6.95	599.00	2.37	7.81	0.10	-80.50
Last 5	14:42:49	1500.02	26.46	6.95	593.52	1.56	7.81	0.09	-79.01
Variance 0			0.08	-0.00	0.63			-0.02	-0.42
Variance 1			0.35	-0.00	2.89			-0.01	-0.05
Variance 2			-0.03	0.00	-5.47			-0.01	1.49

Notes

1417 start purge@200mL/min, 1442 all parameters stable, 1450 sampled@200mL/min

Grab Samples

GWC-5

Sampled at 1450

Product Name: Low-Flow System

Date: 2016-09-07 15:43:45

Project Information:		Pump Information:	
Operator Name	Will Virgo	Pump Model/Type	Alexis Pegasus Peristaltc
Company Name	ERM	Tubing Type	LDPE
Project Name	GPC	Tubing Diameter	0.17 in
Site Name	Plant Hammond	Tubing Length	50 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC6	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5631711 L
Well Total Depth	42.60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1.56 in
Depth to Water	18.64 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5%		+/- 0.2	+/- 100
Last 5	15:18:48	900.02	26.06	7.12	466.52	10.50	18.77	0.70	-117.76
Last 5	15:23:48	1200.02	26.10	7.09	476.17	11.20	18.77	0.19	-118.87
Last 5	15:28:48	1500.02	26.67	7.09	465.45	4.18	18.77	0.13	-118.96
Last 5	15:33:48	1800.02	28.17	7.07	481.10	4.76	18.71	0.18	-119.15
Last 5	15:38:48	2100.02	28.26	7.07	473.93	4.69	18.71	0.19	-117.27
Variance 0			0.57	-0.00	-10.72			-0.06	-0.08
Variance 1			1.51	-0.01	15.65			0.05	-0.19
Variance 2			0.09	-0.00	-7.17			0.01	1.87

Notes

Purge started at 1503, @ 200ml/min

Purge rate lowered to 100 ml/min at 1528 to lowered turbidity. Well parameters stable at 1538, well sampled at 100 ml/min

Grab Samples

GWC-6

Sample Time: 15:43

Product Name: Low-Flow System

Date: 2016-09-07 16:43:50

Project Information:		Pump Information:	
Operator Name	Markevious Thomas	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	.17 in
Site Name	GPC- Hammond	Tubing Length	35 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444108		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	26.82 ft

Well Information:		Pumping Information:	
Well ID	GWC-7	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.2462198 L
Well Total Depth	31.82 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	1 in
Depth to Water	18.92 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	16:15:10	1800.02	22.47	5.74	385.04	6.57	19.04	0.10	39.56
Last 5	16:20:10	2100.02	22.94	5.74	389.38	6.08	19.04	0.10	37.41
Last 5	16:25:10	2399.99	23.25	5.76	390.79	4.12	19.04	0.10	34.49
Last 5	16:30:10	2699.99	23.48	5.78	390.13	4.34	19.04	0.09	32.20
Last 5	16:35:10	2999.99	23.61	5.77	393.43	3.12	19.04	0.09	30.61
Variance 0			0.31	0.01	1.41			0.00	-2.92
Variance 1			0.22	0.02	-0.66			-0.01	-2.29
Variance 2			0.14	-0.01	3.30			-0.00	-1.59

Notes

1545 start purge@200mL/min, 1635 all parameters stable, 1640 sampled @200mL/min

Grab Samples

GWC-7

Sampled at 1640 .5gal, 1qt, 250mL

GROUNDWATER SAMPLING LOG SHEET

ERM

Client: Georgia Power Company
Site: Hubbard
Well ID: GWC-8
Total Depth (ft)[1]: 27.10
Depth to Water (ft): 15.75
Well Diameter (in): 2
Well Volume (gal) = 0.041d²h: 1.861
Well Volume (L) = gal * 3.785: 7.045
d = well diameter (inches) h = length of water column (feet)

Project No.: 0337351
Location: Rome, Ga.
Pump Type/Model: Roistaltic / Aquas
Tubing Material: LDPE
Pump Intake Depth (ft): 22.10
Start/Stop Purge Time: 1100/1245
Purge Rate (L/min)[2]: .2
Total Purge Volume (L): 21
Purge Method: Low-Flow (Well Volume) Other:
Sampling Method: (Pump Discharge)[3] Other:

Sampling Date: 9-8-16
Sampler's Name: Mackenious Thomas
Sample Collection Time: 1250
Sample Purge Rate (L/min)[3]: .2
Sample ID: GWC-8
Laboratory Analyses: See CoD
QA/QC Collected? Yes
QA/QC I.D. FB-2

Well Type: Flush (Stick Up)
Well Lock: (Yes) No
Well Bolted: Yes (No) Bolts Needed:
Well Cap Condition: (Good) Replace Other
Well Tag Present: (Yes) No Water in Vault: Yes No

All sample containers requiring chemical preservation properly preserved prior to demob from well? Yes No

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, issues with pump/well/weather/etc.)
1105	21.84	394.70	0.67	7.16	99.40	3.44	~~200~~ 200	1	~~16.58~~	16.58 Qt
1110	20.70	399.20	0.24	7.34	51.60	4.15	200	1	16.93	
1115	20.46	399.70	0.20	7.37	31.80	4.21	200	1	17.15	
1120	20.44	393.20	0.16	7.39	-46.40	3.91	200	1	17.29	All Parameters Stable
1125	20.39	390.90	0.14	7.40	-66.50	1.41	200	1	17.36	
1130	20.23	386.50	0.12	7.41	-74.60	1.17	200	1	17.41	
1135	20.30	387.60	0.12	7.42	-79.20	1.14	200	1	17.45	One well volume purged
1140	20.26	387.70	0.12	7.43	-81.70	1.44	200	1	17.47	
1145	~~20.36~~	385.70	0.13	7.43	-83.00	1.62	200	1	17.48	20.32 °C
1150	20.19	384.60	0.12	7.44	-84.20	1.47	200	1	17.48	
1155	20.60	383.90	0.12	7.44	-84.90	1.64	200	1	17.47	
1200	20.65	384.00	0.12	7.44	-85.40	1.35	200	1	17.47	
1205	20.75	383.90	0.12	7.44	-85.60	1.14	200	1	17.48	
1210	20.81	384.10	0.12	7.45	-85.90	1.08	200	1	17.48	Two well volumes purged
1215	20.44	382.30	0.11	7.45	-86.20	2.95	200	1	17.48	
1220	20.76	383.50	0.10	7.45	-86.30	2.01	200	1	17.48	
1225	20.85	383.20	0.10	7.45	-86.30	1.59	200	1	17.47	
1230	20.97	383.00	0.09	7.45	-86.30	1.37	200	1	17.46	
1235	21.14	383.10	0.09	7.45	-86.60	1.54	200	1	17.46	
1240	21.29	381.40	0.09	7.45	-86.80	2.49	200	1	17.45	
1245	21.07	381.40	0.09	7.45	-86.20	2.51	200	1	17.43	Three well Volume purged
		All Parameters Stable, 3 well volumes purged								
Stabilizing Criteria[4, 5]		+/- 5%	0.2 mg/L or 10% whichever is greater [9]	+/- 0.2 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	

Sampled at 1250

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

Product Name: Low-Flow System

Date: 2016-09-08 14:39:02

Project Information:		Pump Information:	
Operator Name	Markevious Thomas	Pump Model/Type	Alexis Pegasus Peristaltc
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	0.17 in
Site Name	Plant Hammond	Tubing Length	55 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444108		
Turbidity Make/Model	Hanna HI98703	Pump placement from TOC	48 ft

Well Information:		Pumping Information:	
Well ID	GWC-9	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.3354883 L
Well Total Depth	52.05 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2 in
Depth to Water	19.42 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 5	+/- 0.1	+/- 5%	+/- 5%		+/- 0.2	+/- 100
Last 5	14:10:50	1500.02	22.35	6.95	336.35	10.40	19.68	0.15	-109.55
Last 5	14:15:50	1800.02	22.15	6.93	336.29	6.40	19.68	0.14	-108.15
Last 5	14:20:50	2100.02	21.60	6.93	334.36	3.54	19.68	0.12	-106.28
Last 5	14:25:50	2400.02	21.82	6.92	338.99	4.36	19.68	0.12	-106.54
Last 5	14:30:50	2700.02	21.64	6.93	333.69	3.75	19.69	0.11	-105.39
Variance 0			-0.55	-0.00	-1.93			-0.01	1.86
Variance 1			0.22	-0.01	4.63			-0.00	-0.25
Variance 2			-0.18	0.01	-5.30			-0.01	1.15

Notes

1345 start purge@200mL/min, 1405 all parameters stable, 1430 turbidity<5NTU, 1435 sampled@200mL/min

Grab Samples

GWC-9

Sampled at 1435 .5gal, 1qt, 250mL

Product Name: Low-Flow System

Date: 2016-09-07 14:34:38

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd	Tubing Diameter	0.17 in
Site Name	GPC - Hammond	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna 98703	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-10	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.2506832 L
Well Total Depth	33.99 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	0.6 in
Depth to Water	20.85 ft	Total Volume Pumped	3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	14:23:17	180.04	19.59	7.38	244.35	1.42	20.90	0.18	-74.35
Last 5	14:26:17	360.02	19.34	7.39	241.64	0.75	20.90	0.17	-72.51
Last 5	14:29:17	540.02	19.12	7.40	243.46	1.38	20.90	0.16	-71.52
Last 5	14:32:17	720.02	19.32	7.40	245.01	1.08	20.90	0.15	-71.95
Last 5									
Variance 0			-0.25	0.01	-2.71			-0.01	1.84
Variance 1			-0.23	0.00	1.82			-0.01	1.00
Variance 2			0.21	0.00	1.55			-0.01	-0.43

Notes

Started purge at 1417. Sample rate 250 mL/min. No issues. Occasional reddish-tan "fluffy" material in water. Otherwise clear, no odor.

Grab Samples

GWC-10

Sample time 1436

GROUNDWATER SAMPLING LOG SHEET

Client: Georgia Power Company
Site: Hillabee
Well ID: ~~MW-GWC-18~~ GWC-18
Total Depth (ft)[1]: 56.65
Depth to Water (ft): 16.87
Well Diameter (in): 2
Well Volume (gal) = 0.041d²h: 6.524
Well Volume (L) = gal * 3.785: 24.693
d = well diameter (inches) h = length of water column (feet)

Project No.: 0337551
Location: Rome, GA.
Pump Type/Model: Proactive / Alexis
Tubing Material: LDPE
Pump Intake Depth (ft): 51.65
Start/Stop Purge Time: 1530/1555
Purge Rate (L/min)[2]: 200
Total Purge Volume (L): 5
Purge Method: (Low-Flow) Well Volume Other:
Sampling Method: (Pump Discharge) Other:

Sampling Date: 9-8-16
Sampler's Name: Mackenzie Thomas
Sample Collection Time: 1600
Sample Purge Rate (L/min)[3]: 200
Sample ID: GWC-18
Laboratory Analyses: See Chain of Custody

QA/QC Collected? No
QA/QC I.D.

Well Type: Flush (Stick Up)
Well Lock: (Yes) No
Well Bolted: Yes (No) Bolts Needed:
Well Cap Condition: (Good) Replace Other
Well Tag Present: (Yes) No Water in Vault: Yes No

All sample containers requiring chemical preservation properly preserved prior to demob from well? (Yes) No

Time	Temp. (°C)	Spec. Cond. (mS/cm) (µS/cm)	DO (%)	pH (SU)	ORP (mV)	Turbidity (NTUs)	Purge Rate (mL/min)	Purged Volume (L)	H_2O Depth (ft btoc)	Notes (Purge method, water clarity, odor, purge rate, Issues with pump/well/weather/etc.)
1535	24.83	554.70	0.42	7.53	19.60	6.20	200	1	17.70	
1540	23.20	354.60	0.25	7.58	25.80	2.97	200	1	18.00	
1545	22.94	352.90	0.40	7.59	33.90	2.90	200	1	18.12	
1550	22.66	346.60	0.39	7.53	37.50	4.88	200	1	18.19	
1555	23.14	348.10	0.30	7.54	35.20	2.02	200	1	18.22	
			All Parameters Stable							
			Sample at 1600							
Stabilizing Criteria[4,5]		+/- 5%	0.2 mg/L or 10% whichever is greater [9]	+/- 0.2 unit		<5 NTUs	>100 mL < 250 mL	>3L	<0.33 ft	

(1) - Maximum purge rate of 250 mL/min
(2) - Sample rate to be between 100 mL/min and 250 mL/min
(3) - Collect sample from pump discharge without tubing contacting sample container
(4) - Field parameter measurements to be recorded every 3 to 5 minutes.
(5) - Stabilization criteria based on three most recent consecutive measurements.
(6) - Monitor depth to water every 3 to 5 minutes. Well drawdown to be 0.33 ft or less. Purge/sampling rate to be lowered as necessary to keep drawdown below 0.33 ft.
(7) - Contact field team lead if drawdown > 0.33 ft - do not switch to 3 well volume method until instructed
(8) - Preserve all samples as appropriate immediately following collection
(9) - DO 0.2 mg/L or 10% whichever is greater (no criteria apply if DO < 0.5 mg/L)

Purge Log QA/QC'd By:
Date:

Purge Log QA/QC'd By:
Date:

Product Name: Low-Flow System

Date: 2016-09-08 10:39:45

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd	Tubing Diameter	0.17 in
Site Name	GPC - Hammond	Tubing Length	60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna 98703	Pump placement from TOC	52 ft

Well Information:		Pumping Information:	
Well ID	GWC-19	Final Pumping Rate	250 mL/min
Well diameter	2 in	Total System Volume	0.3578054 L
Well Total Depth	57.21 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	6.36 in
Depth to Water	22.08 ft	Total Volume Pumped	4.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	10:27:16	180.10	18.22	7.49	385.76	5.87	22.57	0.23	-88.39
Last 5	10:30:16	360.02	18.08	7.53	387.79	4.09	22.59	0.20	-87.32
Last 5	10:33:16	540.02	18.02	7.55	390.47	3.50	22.61	0.17	-84.87
Last 5	10:36:16	720.02	17.99	7.57	392.07	2.89	22.61	0.19	-84.36
Last 5									
Variance 0			-0.14	0.04	2.03			-0.03	1.07
Variance 1			-0.06	0.02	2.68			-0.03	2.45
Variance 2			-0.03	0.01	1.61			0.02	0.51

Notes

Purge started at 1019

No issues; clear, no odor. Dup-2 pulled here. Sample rate 250mL/min

Grab Samples

GWC-19

Sample time 1040

DUP-2

Sample time 1040

Product Name: Low-Flow System

Date: 2016-09-08 13:04:39

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	.17 in
Site Name	GPC- Hammond	Tubing Length	36 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	29 ft

Well Information:		Pumping Information:	
Well ID	GWC-20	Final Pumping Rate	75 mL/min
Well diameter	2 in	Total System Volume	0.3806832 L
Well Total Depth	34.06 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	4.44 in
Depth to Water	8.15 ft	Total Volume Pumped	3.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	11:52:53	1200.02	21.95	7.27	369.44	1.30	8.50	0.38	-149.83
Last 5	11:57:53	1500.02	21.98	7.30	368.81	1.57	8.50	0.37	-149.77
Last 5	12:02:53	1800.02	21.79	7.32	367.14	1.48	8.51	0.36	-149.99
Last 5	12:07:53	2100.02	21.82	7.33	367.29	1.12	8.52	0.32	-149.57
Last 5	12:12:53	2400.02	21.87	7.34	367.19	1.00	8.52	0.29	-150.21
Variance 0			-0.19	0.02	-1.67			-0.02	-0.22
Variance 1			0.03	0.01	0.15			-0.04	0.42
Variance 2			0.06	0.01	-0.10			-0.03	-0.64

Notes

Sample time is 12:20 at 75 mL/min; Total purged volume is 3.25 L; Initial purge rate of 100 mL/min was reduced to 75 mL/min at 11:42 (after 1 L); Ants inside well casing and some sucked up through tubing; DO stable within 0.2 mg/L; TD measured is 31.29 ft btoc

Grab Samples

GWC-20

Groundwater grab sample

Product Name: Low-Flow System

Date: 2016-09-08 12:56:25

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd	Tubing Diameter	0.17 in
Site Name	GPC - Hammond	Tubing Length	23 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna 98703	Pump placement from TOC	15 ft

Well Information:		Pumping Information:	
Well ID	GWC-21	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.1926587 L
Well Total Depth	17.93 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	78 in
Depth to Water	10.81 ft	Total Volume Pumped	7.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	12:38:39	3240.01	20.02	7.13	525.32	5.36	16.40	0.47	-55.08
Last 5	12:41:39	3420.01	19.95	7.17	510.19	5.00	16.69	0.48	-65.91
Last 5	12:44:39	3600.01	20.04	7.18	510.60	4.27	16.99	0.57	-41.20
Last 5	12:47:39	3780.01	20.13	7.19	510.22	2.01	17.09	0.59	-32.03
Last 5	12:50:39	3960.01	20.12	7.20	508.05	1.82	17.31	0.52	-30.19
Variance 0			0.09	0.01	0.41			0.09	24.71
Variance 1			0.09	0.01	-0.37			0.02	9.18
Variance 2			-0.01	0.02	-2.17			-0.07	1.84

Notes

Started purge at 1139 about 400 mL/ min, turned rate down to 100 mL/min before first reading. Initial intake depth was 15', then moved to 17', eventually to bottom to finish purging dry. Will allow well to recharge while sampling next well. Purged almost two well volumes.

Grab Samples

Product Name: Low-Flow System

Date: 2016-09-08 13:40:39

Project Information:		Pump Information:	
Operator Name	Tracy Wardell	Pump Model/Type	Alexis Peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker Rd	Tubing Diameter	0.17 in
Site Name	GPC - Hammond	Tubing Length	45 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	444107		
Turbidity Make/Model	Hanna 98703	Pump placement from TOC	37 ft

Well Information:		Pumping Information:	
Well ID	GWC-22	Final Pumping Rate	240 mL/min
Well diameter	2 in	Total System Volume	0.290854 L
Well Total Depth	41.75 ft	Calculated Sample Rate	180 sec
Screen Length	10 ft	Stabilization Drawdown	12 in
Depth to Water	7.56 ft	Total Volume Pumped	3.84 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	13:28:45	180.08	20.87	7.85	344.37	3.84	8.50	0.20	-153.85
Last 5	13:31:45	360.03	20.66	7.86	346.63	2.07	8.53	0.17	-154.19
Last 5	13:34:45	540.02	20.59	7.88	346.01	1.52	8.55	0.15	-152.39
Last 5	13:37:45	720.02	20.33	7.89	345.03	1.48	8.56	0.14	-148.31
Last 5									
Variance 0			-0.21	0.01	2.25			-0.03	-0.33
Variance 1			-0.07	0.02	-0.62			-0.02	1.80
Variance 2			-0.26	0.01	-0.97			-0.01	4.08

Notes

Purge started at 1321

No issues; clear, no odor. Sample rate 240 mL/min. Filled extra rad bottle here (lab request).

Grab Samples

GWC-22

Sample time 1342

Product Name: Low-Flow System

Date: 2016-09-08 15:31:59

Project Information:		Pump Information:	
Operator Name	Andreas Shoredits	Pump Model/Type	Alexis peristaltic
Company Name	ERM	Tubing Type	LDPE
Project Name	Huffaker	Tubing Diameter	.17 in
Site Name	GPC- Hammond	Tubing Length	51 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	450141		
Turbidity Make/Model	Hanna HI 98703	Pump placement from TOC	44 ft

Well Information:		Pumping Information:	
Well ID	GWC-23	Final Pumping Rate	100 mL/min
Well diameter	2 in	Total System Volume	0.4476346 L
Well Total Depth	49.72 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	2.52 in
Depth to Water	20.03 ft	Total Volume Pumped	3.82 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 100
Last 5	14:19:22	1500.01	23.57	7.18	307.66	4.23	20.20	0.35	-122.36
Last 5	14:24:22	1800.01	23.07	7.19	301.79	1.94	20.21	0.31	-121.11
Last 5	14:29:22	2100.00	22.67	7.18	306.34	2.99	20.22	0.27	-120.52
Last 5	14:34:22	2400.00	22.27	7.18	299.85	4.23	20.24	0.24	-118.04
Last 5	14:39:22	2700.00	21.64	7.17	299.66	2.95	20.24	0.21	-114.54
Variance 0			-0.40	-0.01	4.55			-0.04	0.60
Variance 1			-0.40	0.01	-6.49			-0.03	2.48
Variance 2			-0.63	-0.02	-0.19			-0.03	3.50

Notes

Sample time is 14:45; Sample rate is 100 mL/min; Initial purge rate of 64 mL/min was increased to 75 mL/min @ 14:03, to 90 mL/min @ 14:08, and finally to 100 mL/min @ 14:28; Drawdown slowed as pumping proceeded; Total depth measured at 49.99 ft btoc with soft bottom

Grab Samples

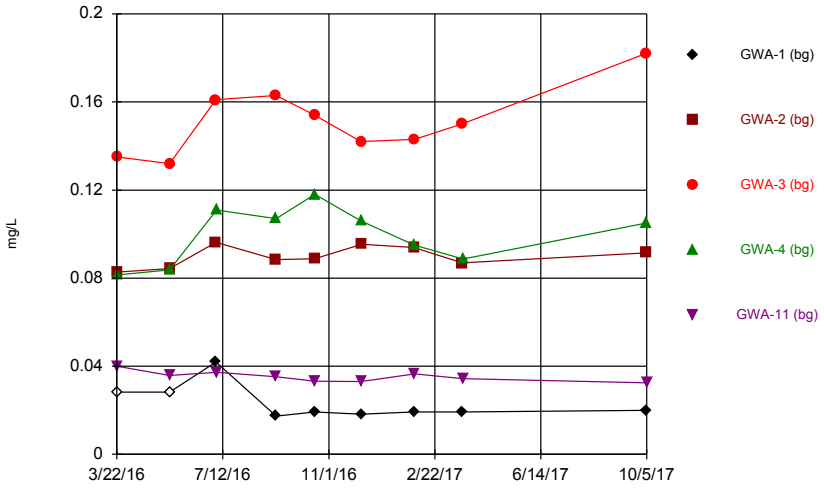
GWC-23

Groundwater grab sample

Appendix B
Statistical Analyses

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Boron Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

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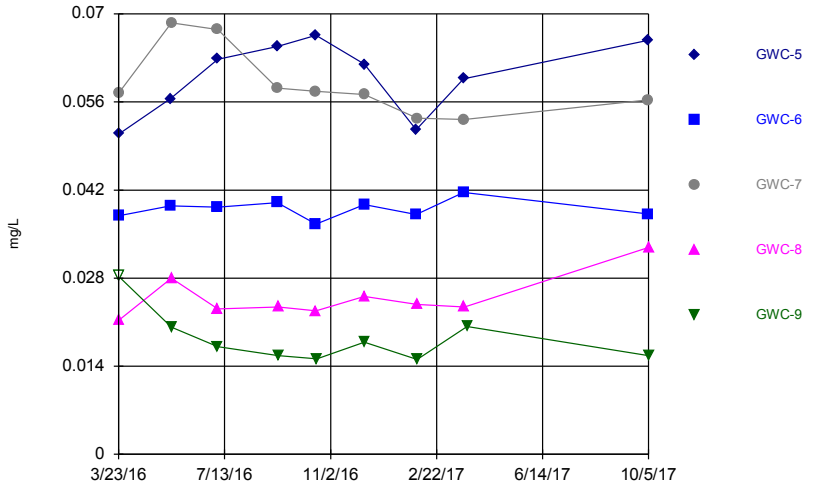

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Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

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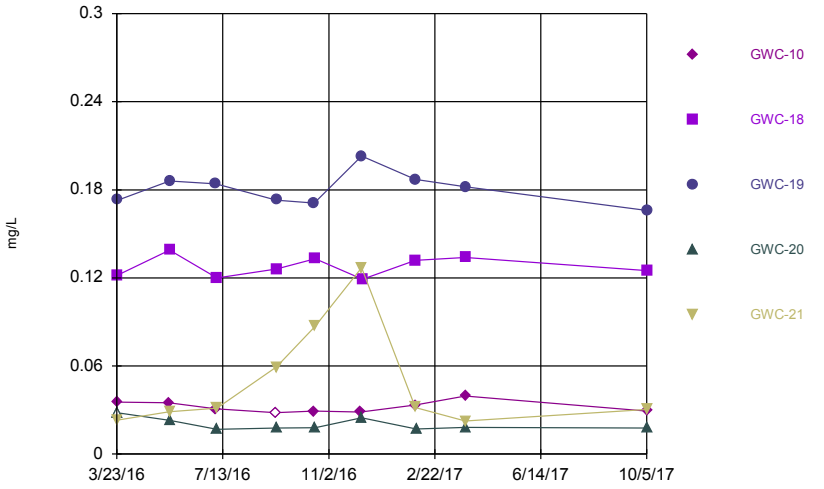

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Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

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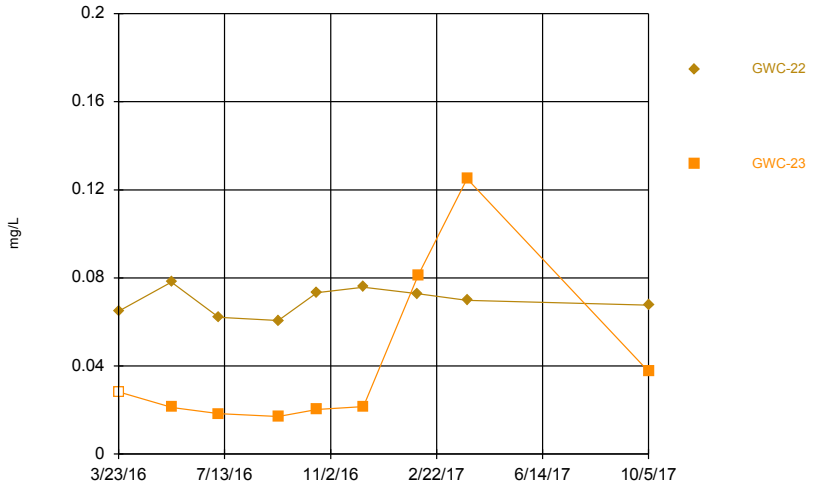

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Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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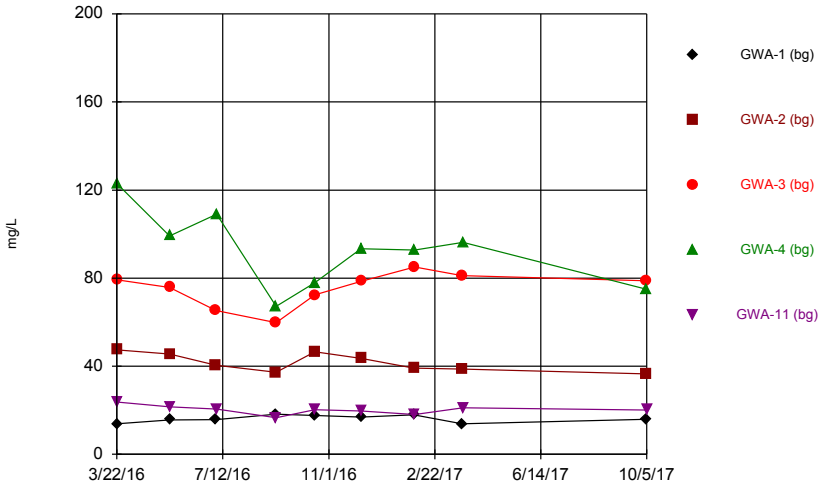
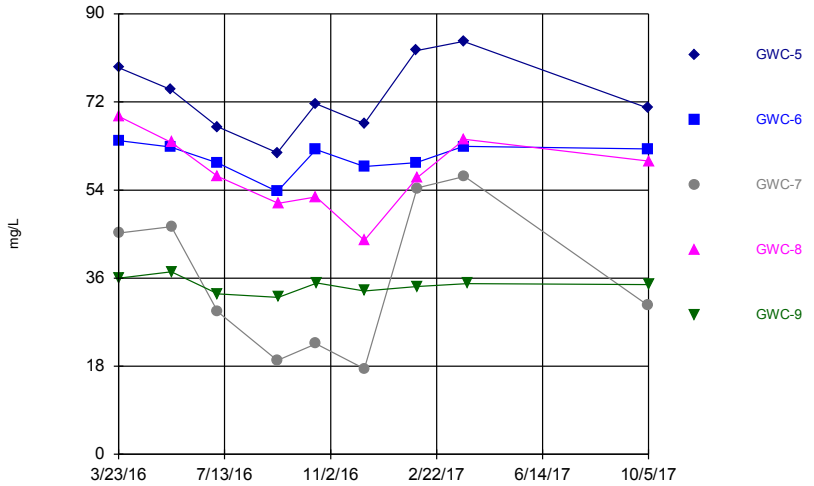


Constituent: Calcium Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG

Time Series



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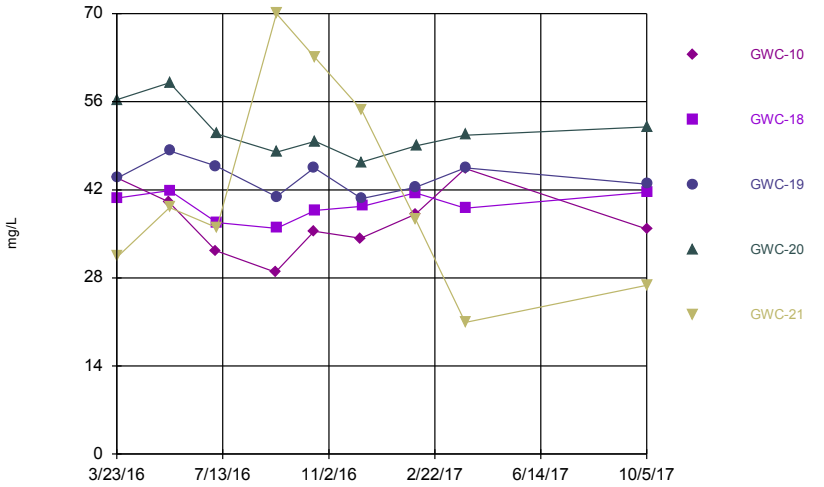
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG

Time Series



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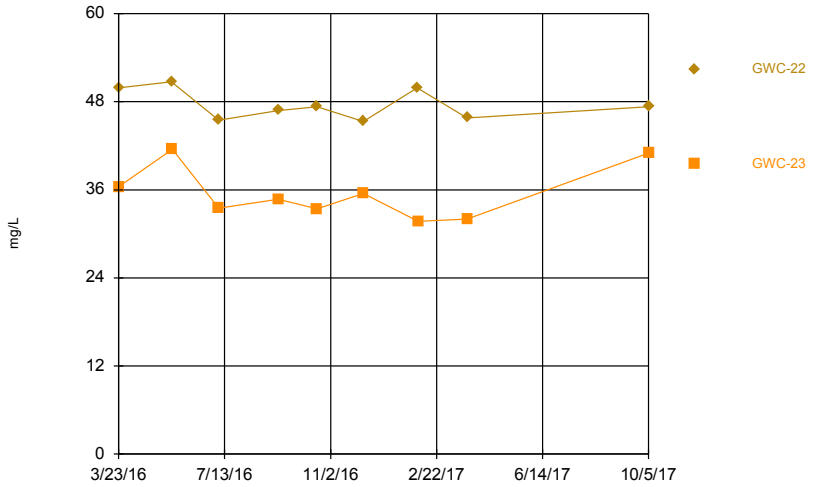
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG

Time Series



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Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

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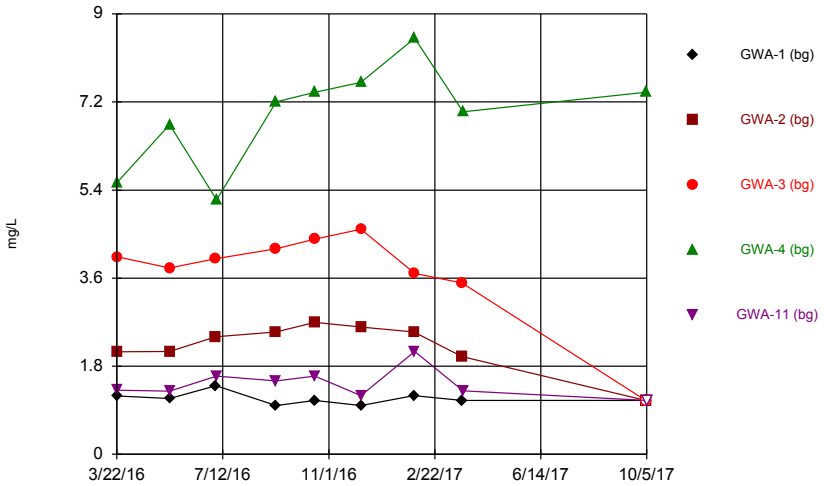

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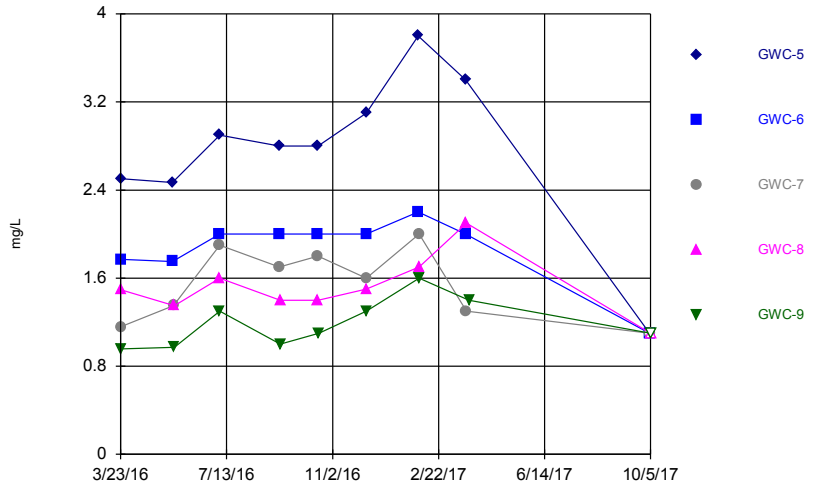
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

Time Series



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Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

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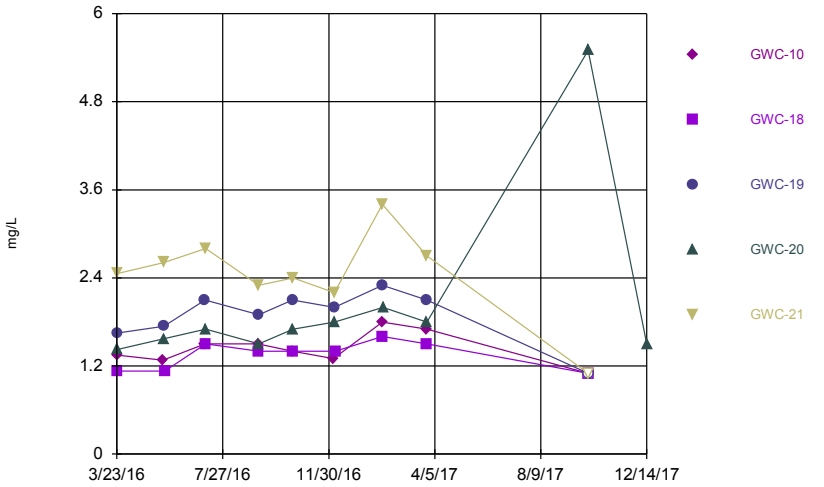

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Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

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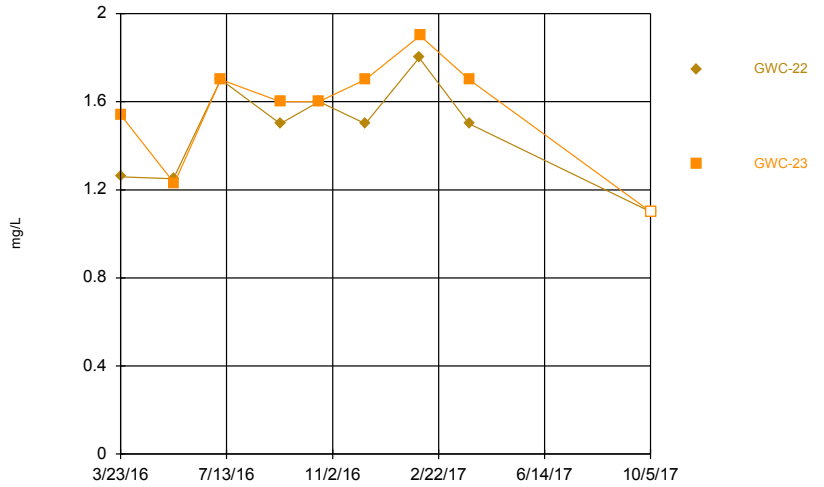

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Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

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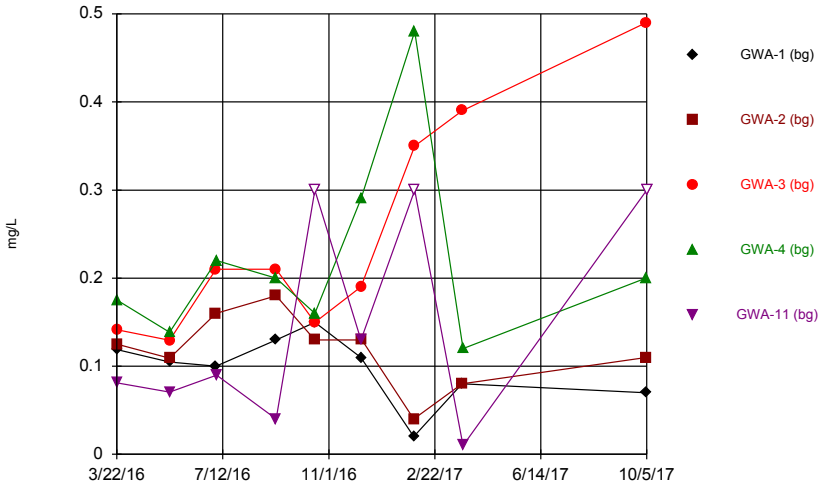

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Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

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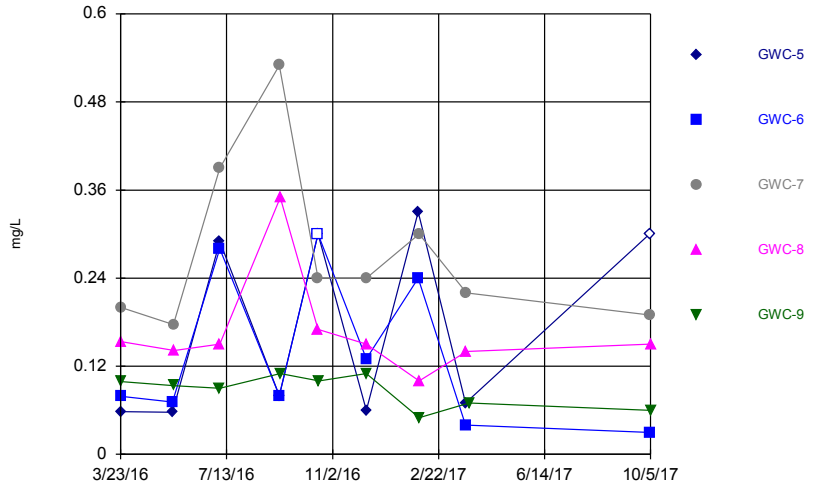

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Hollow symbols indicate censored values.

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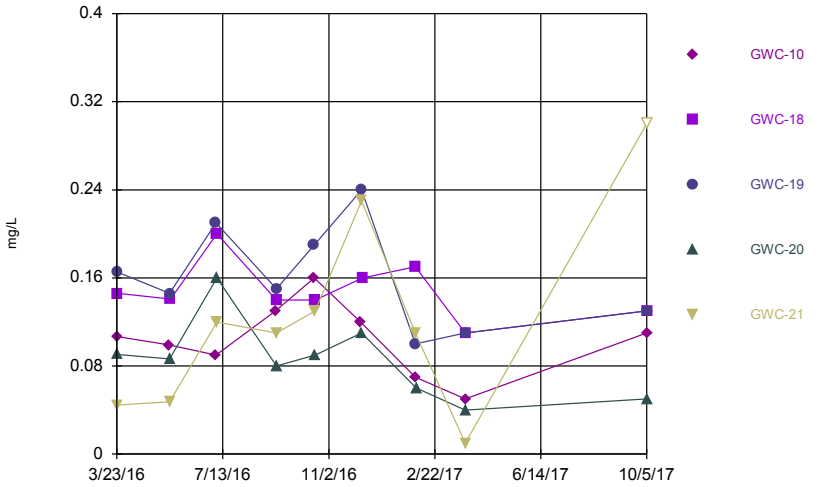

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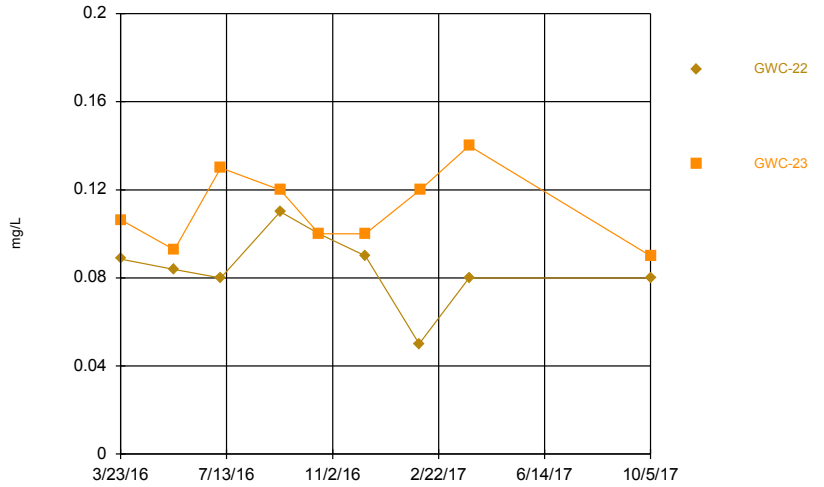
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG

Time Series



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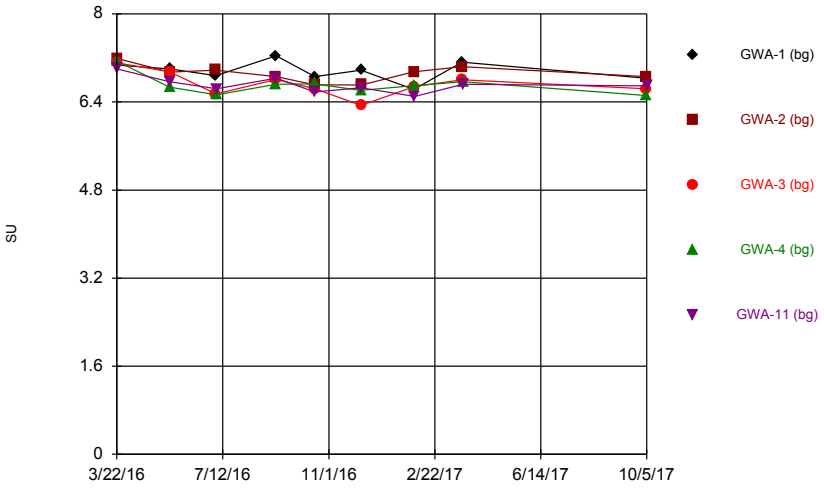
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

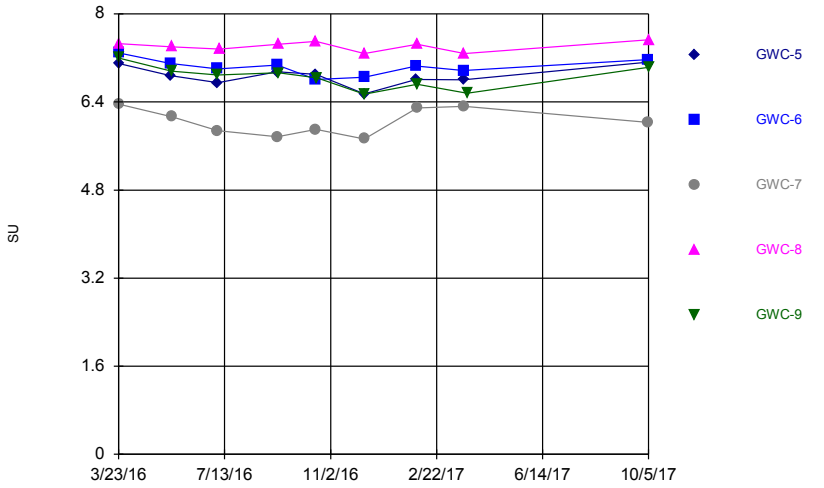
Time Series



Constituent: pH Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG

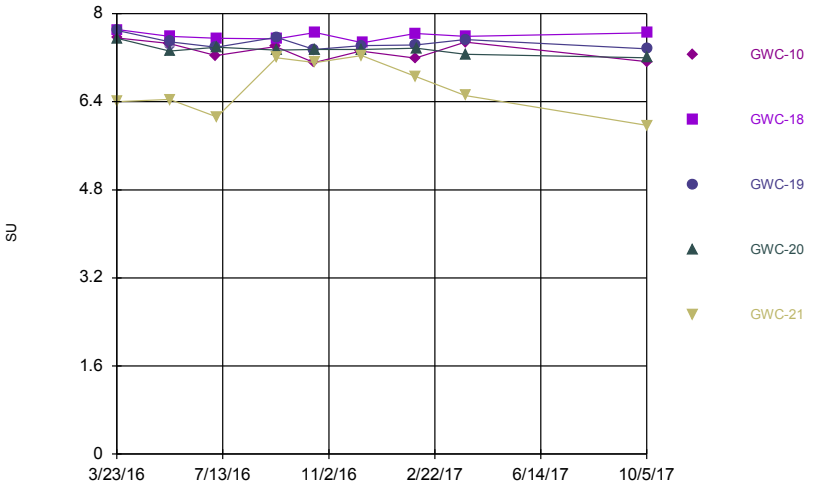
Time Series



Constituent: pH Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG

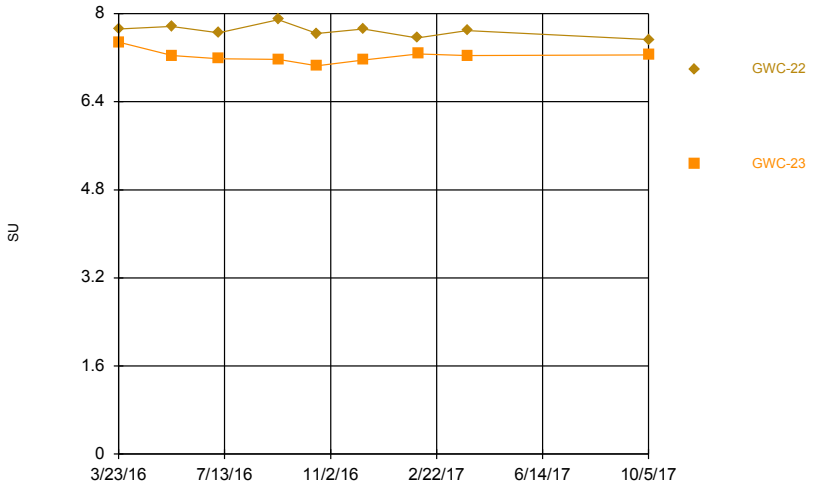
Time Series



Constituent: pH Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG

Time Series



Constituent: pH Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
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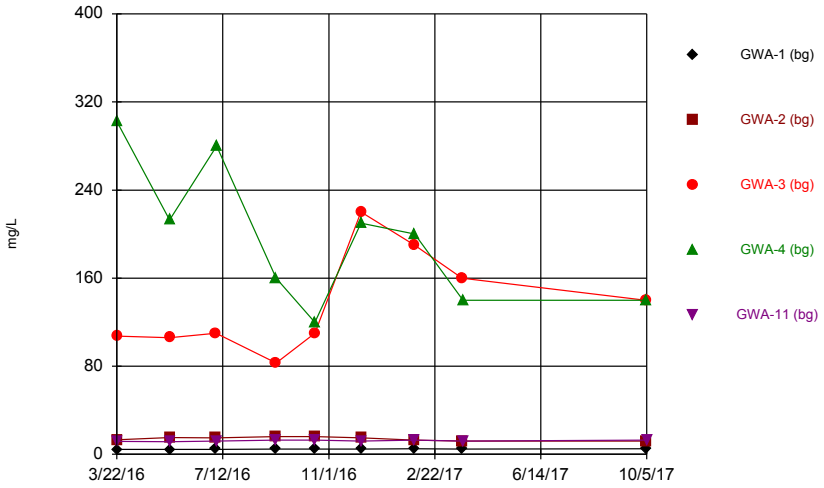
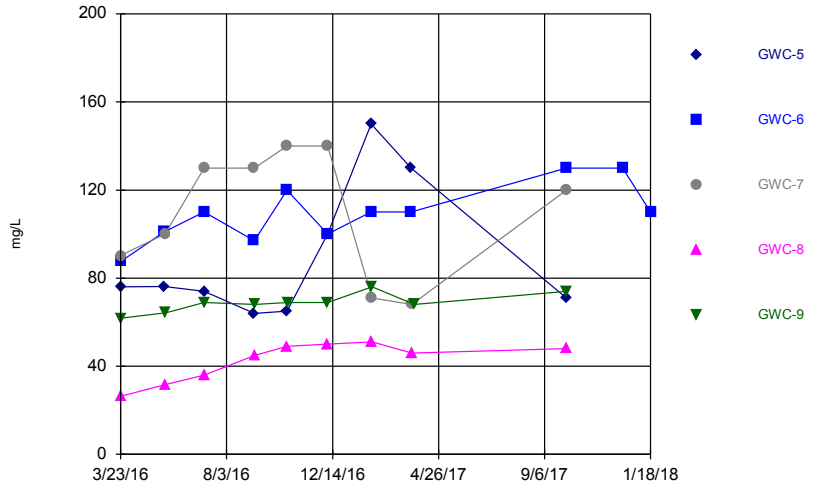
Time Series



Constituent: Sulfate Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG

Time Series



Constituent: Sulfate Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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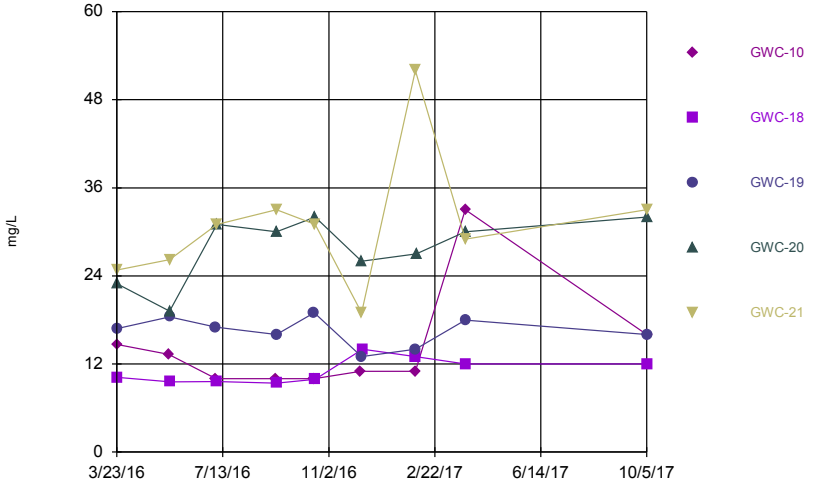
Time Series



Constituent: Sulfate Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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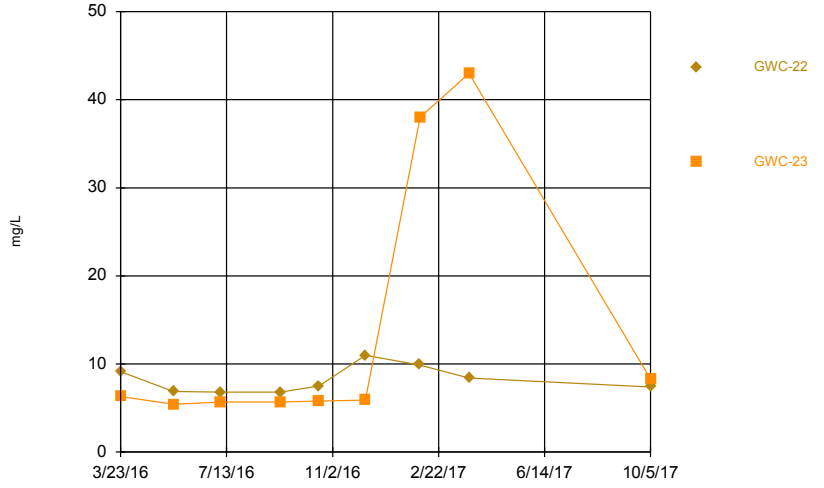
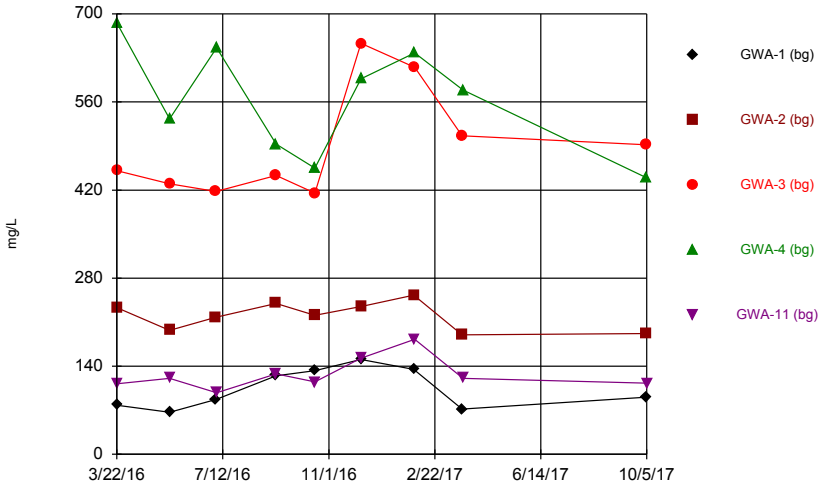
Time Series



Constituent: Sulfate Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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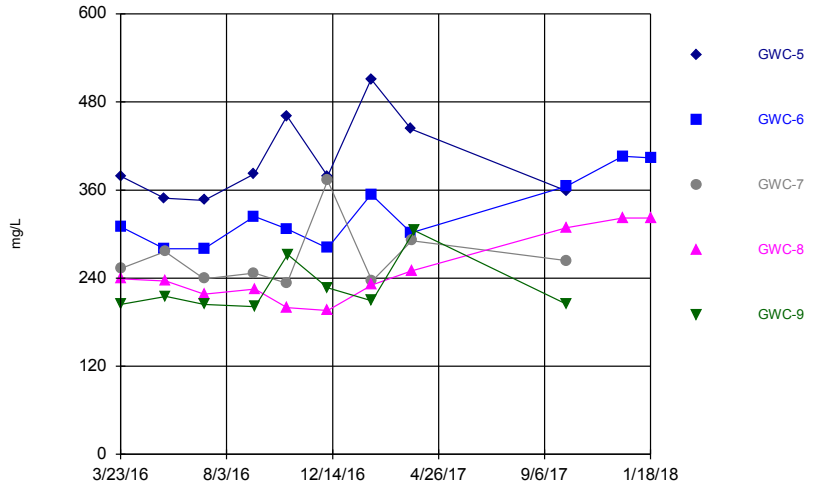
Time Series



Constituent: Total Dissolved Solids Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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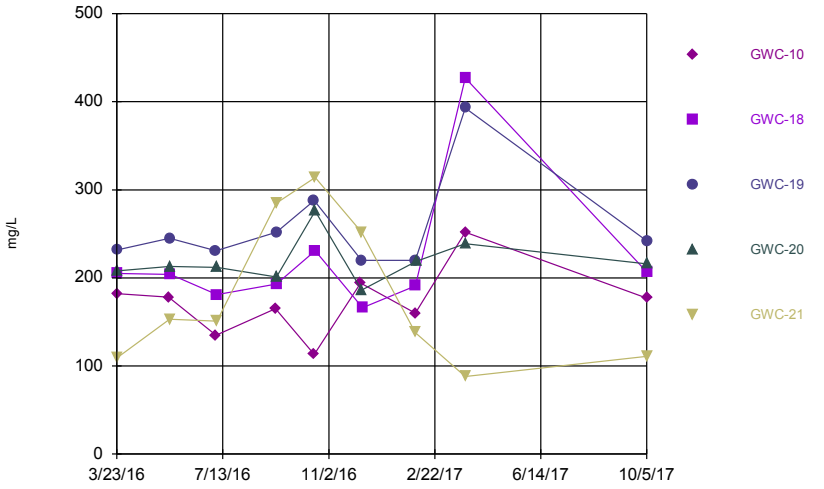
Time Series



Constituent: Total Dissolved Solids Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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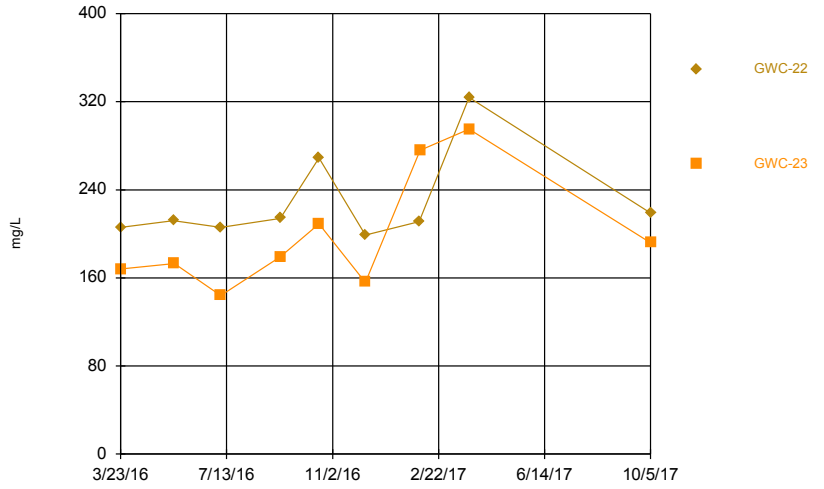
Time Series



Constituent: Total Dissolved Solids Analysis Run 1/25/2018 9:43 PM View: 1. Time Series - All Wells
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125 Printed 1/25/2018, 10:22 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GWA-1	0.1	n/a	10/4/2017	0.0199	No	8	25	n/a	0.005912	NP Intra (normality) ...
Boron (mg/L)	GWA-2	0.1012	n/a	10/4/2017	0.0914	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	**GWA-3**	**0.1739**	**n/a**	**10/4/2017**	**0.182**	**Yes**	**8**	**0**	**No**	**0.000...**	**Param Intra 1 of 3**
Boron (mg/L)	GWA-4	0.13	n/a	10/4/2017	0.105	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWA-11	0.04099	n/a	10/5/2017	0.0325	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWC-5	0.07287	n/a	10/4/2017	0.0658	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWC-6	0.0426	n/a	10/4/2017	0.0382	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWC-7	0.07255	n/a	10/4/2017	0.0563	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWC-8	0.02841	n/a	10/5/2017	0.0329	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWC-18	0.1451	n/a	10/5/2017	0.125	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWC-19	0.2065	n/a	10/5/2017	0.166	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWC-21	0.1383	n/a	10/5/2017	0.0304	No	8	0	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWC-22	0.08459	n/a	10/5/2017	0.0677	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-1	20.19	n/a	10/4/2017	15.9	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-2	51.34	n/a	10/4/2017	36.5	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-3	94.16	n/a	10/4/2017	78.8	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-4	134.4	n/a	10/4/2017	75.1	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWA-11	25.19	n/a	10/5/2017	20.1	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-5	92.08	n/a	10/4/2017	70.8	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-6	68.16	n/a	10/4/2017	62.4	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-7	73.49	n/a	10/4/2017	30.5	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-8	76.22	n/a	10/5/2017	59.9	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-9	38.4	n/a	10/5/2017	34.7	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-10	50.37	n/a	10/5/2017	35.8	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-18	44.15	n/a	10/5/2017	41.6	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-19	50.19	n/a	10/5/2017	42.9	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-20	61.08	n/a	10/5/2017	52	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-21	82.74	n/a	10/5/2017	26.8	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-22	52.71	n/a	10/5/2017	47.3	No	8	0	No	0.000...	Param Intra 1 of 3
Calcium (mg/L)	GWC-23	42.07	n/a	10/5/2017	41	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWA-4	9.381	n/a	10/4/2017	7.4	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-20	2.115	n/a	12/14/2017	1.5	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWA-1	0.1916	n/a	10/4/2017	0.07	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWA-2	0.2205	n/a	10/4/2017	0.11	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	**GWA-3**	**0.4452**	**n/a**	**10/4/2017**	**0.49**	**Yes**	**8**	**0**	**No**	**0.000...**	**Param Intra 1 of 3**
Fluoride (mg/L)	GWA-4	0.4912	n/a	10/4/2017	0.2	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWA-11	0.1576	n/a	10/5/2017	0.3ND	No	8	25	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-5	0.33	n/a	10/4/2017	0.3ND	No	8	12.5	n/a	0.005912	NP Intra (normality) ...
Fluoride (mg/L)	GWC-7	0.5601	n/a	10/4/2017	0.19	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-8	0.3595	n/a	10/5/2017	0.15	No	8	0	ln(x)	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-9	0.138	n/a	10/5/2017	0.06	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-10	0.1828	n/a	10/5/2017	0.11	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-18	0.2117	n/a	10/5/2017	0.13	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-19	0.2743	n/a	10/5/2017	0.13	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-20	0.1713	n/a	10/5/2017	0.05	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-22	0.1258	n/a	10/5/2017	0.08	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-23	0.1516	n/a	10/5/2017	0.09	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWA-1	7.401	6.544	10/4/2017	6.83	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWA-2	7.296	6.549	10/4/2017	6.86	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWA-3	7.285	6.185	10/4/2017	6.64	No	8	0	No	0.000...	Param Intra 1 of 3

Prediction Limit

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125 Printed 1/25/2018, 10:22 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (SU)	GWA-4	7.15	6.318	10/4/2017	6.52	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWA-11	7.072	6.353	10/5/2017	6.69	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-5	7.211	6.474	10/4/2017	7.12	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-6	7.364	6.671	10/4/2017	7.17	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-7	6.641	5.454	10/4/2017	6.03	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-8	7.59	7.205	10/5/2017	7.53	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-9	7.335	6.325	10/5/2017	7.03	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-10	7.705	6.985	10/5/2017	7.13	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-18	7.768	7.419	10/5/2017	7.65	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-19	7.739	7.229	10/5/2017	7.36	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-20	7.559	7.174	10/5/2017	7.2	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-21	7.71	5.76	10/5/2017	5.97	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-22	7.931	7.479	10/5/2017	7.53	No	8	0	No	0.000...	Param Intra 1 of 3
pH (SU)	GWC-23	7.509	6.939	10/5/2017	7.25	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWA-1	5.174	n/a	10/4/2017	5	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWA-2	17.91	n/a	10/4/2017	12	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWA-3	247.3	n/a	10/4/2017	140	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWA-4	350.4	n/a	10/4/2017	140	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWA-11	13.75	n/a	10/5/2017	13	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-5	165.8	n/a	10/4/2017	71	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-6	127.6	n/a	1/18/2018	110	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-7	178	n/a	10/4/2017	120	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-8	63.3	n/a	10/5/2017	48	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-9	77.62	n/a	10/5/2017	74	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-10	33	n/a	10/5/2017	16	No	8	0	n/a	0.005912	NP Intra (normality) ...
Sulfate (mg/L)	GWC-18	15.08	n/a	10/5/2017	12	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-19	21.39	n/a	10/5/2017	16	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-20	37.44	n/a	10/5/2017	32	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-21	53	n/a	10/5/2017	33	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-22	11.96	n/a	10/5/2017	7.4	No	8	0	No	0.000...	Param Intra 1 of 3
Sulfate (mg/L)	GWC-23	43	n/a	10/5/2017	8.3	No	8	0	n/a	0.005912	NP Intra (normality) ...
Total Dissolved Solids (mg/L)	GWA-1	182.7	n/a	10/4/2017	91	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-2	272.8	n/a	10/4/2017	192	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-3	705.5	n/a	10/4/2017	492	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-4	762.2	n/a	10/4/2017	440	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWA-11	190.8	n/a	10/5/2017	113	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-5	541.9	n/a	10/4/2017	359	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	**GWC-6**	**363.9**	**n/a**	**1/18/2018**	**404**	**Yes**	**8**	**0**	**No**	**0.000...**	**Param Intra 1 of 3**
Total Dissolved Solids (mg/L)	GWC-7	376.4	n/a	10/4/2017	264	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	**GWC-8**	**267.8**	**n/a**	**12/14/2017**	**322**	**Yes**	**8**	**0**	**No**	**0.000...**	**Param Intra 1 of 3**
Total Dissolved Solids (mg/L)	GWC-9	317.7	n/a	10/5/2017	204	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-10	267.9	n/a	10/5/2017	177	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-18	427	n/a	10/5/2017	207	No	8	0	n/a	0.005912	NP Intra (normality) ...
Total Dissolved Solids (mg/L)	GWC-19	396.3	n/a	10/5/2017	242	No	8	0	sqrt(x)	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-20	282.4	n/a	10/5/2017	216	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-21	382	n/a	10/5/2017	111	No	8	0	No	0.000...	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	GWC-22	324	n/a	10/5/2017	219	No	8	0	n/a	0.005912	NP Intra (normality) ...
Total Dissolved Solids (mg/L)	GWC-23	329.5	n/a	10/5/2017	192	No	8	0	No	0.000...	Param Intra 1 of 3

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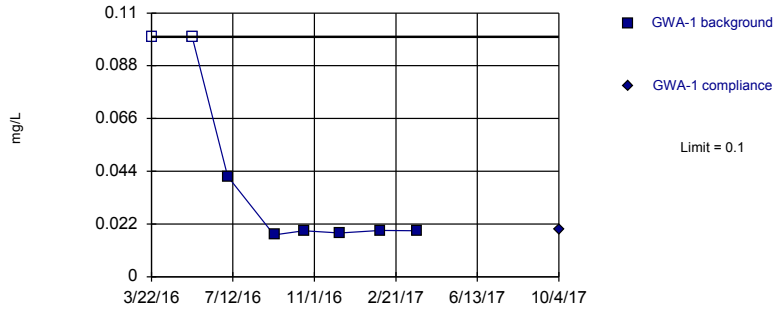
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 25% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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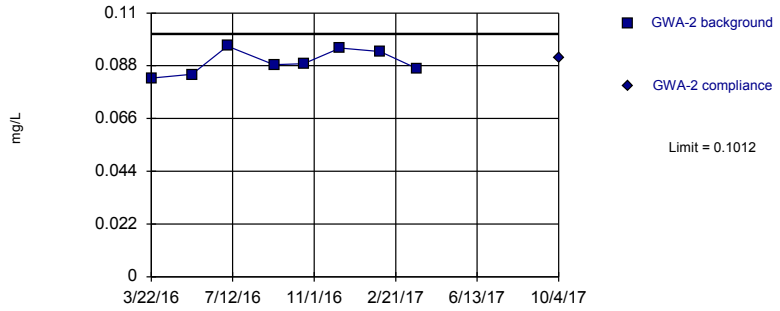
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.08961, Std. Dev.=0.005045, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.925, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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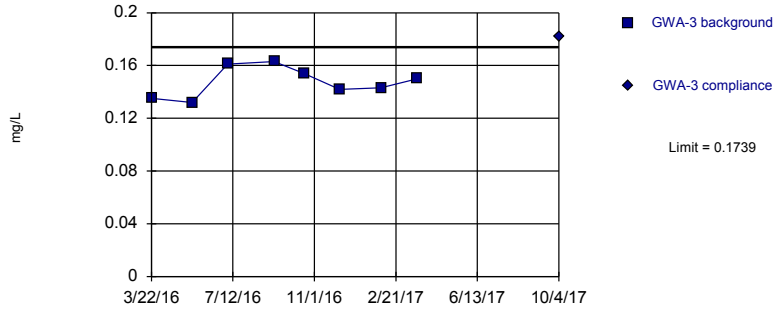
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1475, Std. Dev.=0.01145, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9462, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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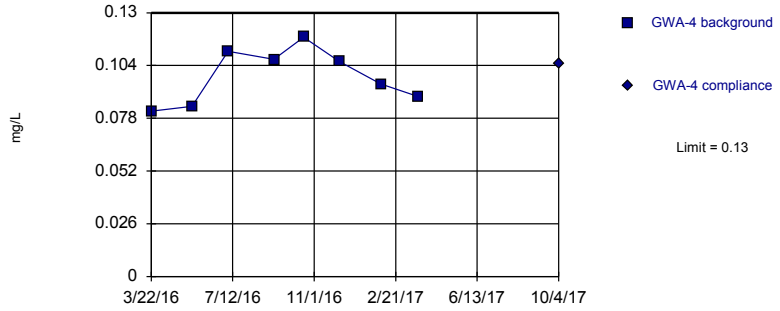
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.09886, Std. Dev.=0.01351, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9318, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-1	GWA-1
3/22/2016	<0.1	
5/17/2016	<0.1	
7/5/2016	0.0419 (J)	
9/7/2016	0.0174 (J)	
10/18/2016	0.0192 (J)	
12/6/2016	0.0182 (J)	
1/31/2017	0.0193 (J)	
3/23/2017	0.0192 (J)	
10/4/2017		0.0199 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-2	GWA-2
3/22/2016	0.0828 (J)	
5/17/2016	0.0844 (J)	
7/5/2016	0.0962 (J)	
9/7/2016	0.0884 (JB)	
10/18/2016	0.0889 (J)	
12/7/2016	0.0954	
1/31/2017	0.0939	
3/23/2017	0.0869	
10/4/2017		0.0914

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-3	GWA-3
3/22/2016	0.135	
5/17/2016	0.132	
7/5/2016	0.161	
9/7/2016	0.163 (B)	
10/18/2016	0.154	
12/6/2016	0.142	
2/1/2017	0.143	
3/23/2017	0.15	
10/4/2017		0.182

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

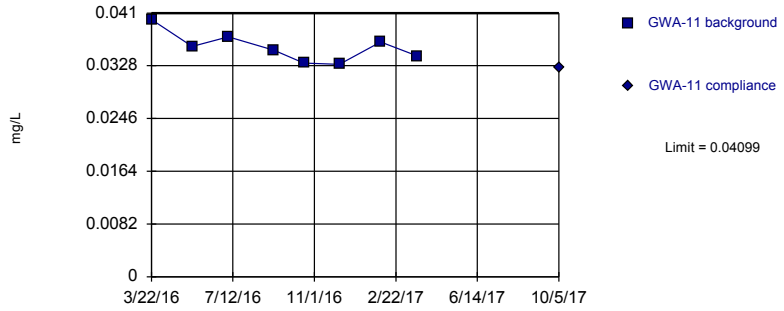
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-4	GWA-4
3/22/2016	0.0815 (J)	
5/17/2016	0.0838 (J)	
7/6/2016	0.111	
9/7/2016	0.107 (B)	
10/18/2016	0.118	
12/6/2016	0.106	
2/1/2017	0.0949	
3/24/2017	0.0887	
10/4/2017		0.105

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.03566, Std. Dev.=0.002313, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9459, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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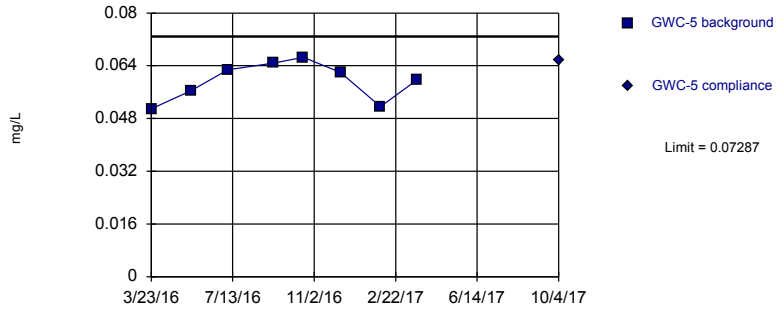
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.05936, Std. Dev.=0.005866, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9222, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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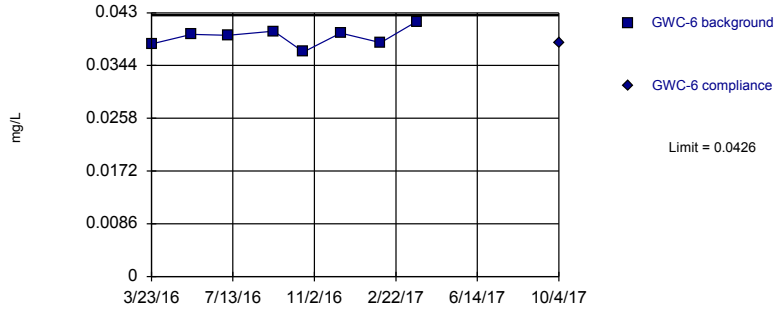
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.03909, Std. Dev.=0.001526, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9715, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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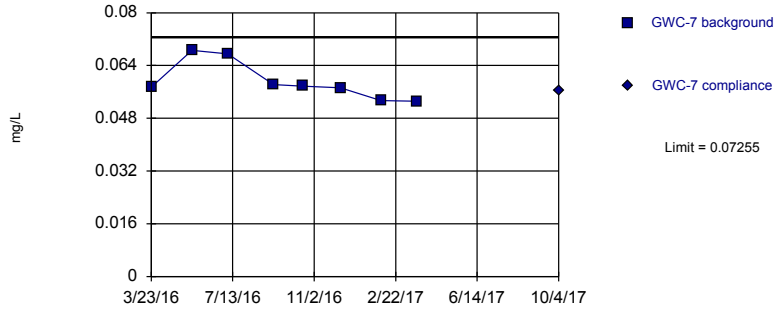
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.05915, Std. Dev.=0.005823, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8225, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-11	GWA-11
3/22/2016	0.04 (J)	
5/17/2016	0.0358 (J)	
7/6/2016	0.0373 (J)	
9/7/2016	0.0352 (JB)	
10/18/2016	0.0332 (J)	
12/6/2016	0.033 (J)	
2/1/2017	0.0365 (J)	
3/24/2017	0.0343 (J)	
10/5/2017		0.0325 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-5	GWC-5
3/23/2016	0.0509 (J)	
5/17/2016	0.0565 (J)	
7/6/2016	0.0628 (J)	
9/7/2016	0.0648 (JB)	
10/18/2016	0.0666 (J)	
12/8/2016	0.062	
2/1/2017	0.0516	
3/23/2017	0.0597	
10/4/2017		0.0658

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-6	GWC-6
3/23/2016	0.0379 (J)	
5/17/2016	0.0395 (J)	
7/6/2016	0.0393 (J)	
9/7/2016	0.04 (JB)	
10/18/2016	0.0366 (J)	
12/8/2016	0.0397 (J)	
2/1/2017	0.0381 (J)	
3/23/2017	0.0416	
10/4/2017		0.0382 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

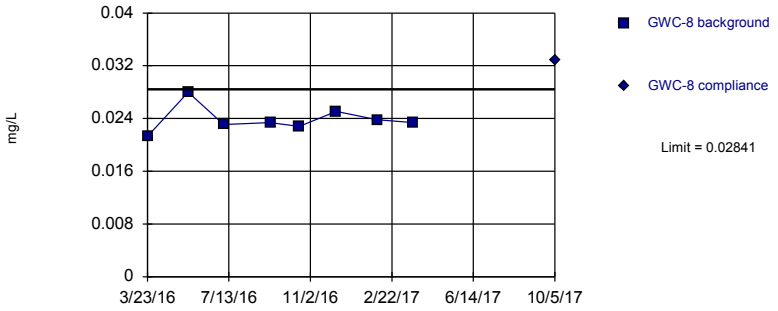
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-7	GWC-7
3/23/2016	0.0574 (J)	
5/18/2016	0.0686 (J)	
7/6/2016	0.0675 (J)	
9/7/2016	0.0582 (JB)	
10/18/2016	0.0577 (J)	
12/8/2016	0.0572	
2/2/2017	0.0534	
3/24/2017	0.0532	
10/4/2017		0.0563

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.02386, Std. Dev.=0.001977, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8792, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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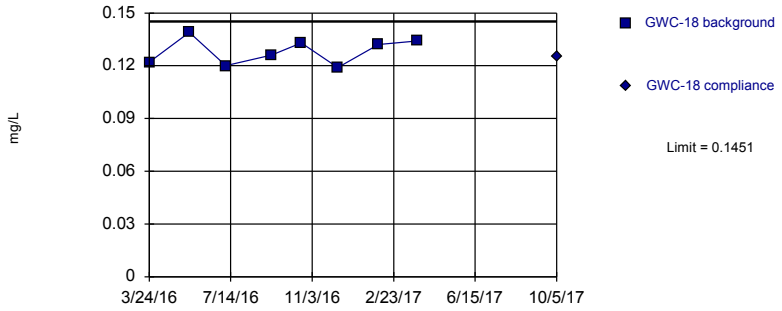
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1281, Std. Dev.=0.007396, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9219, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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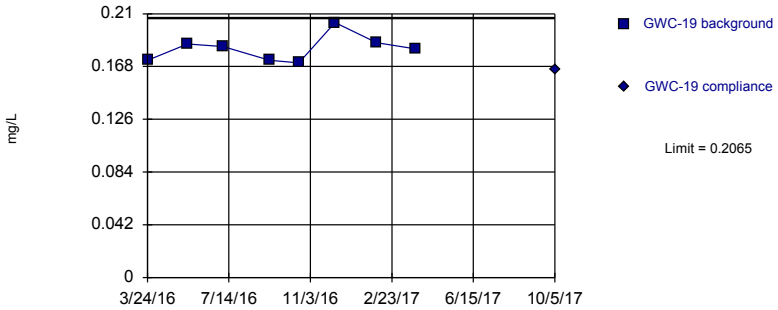
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1824, Std. Dev.=0.01047, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8922, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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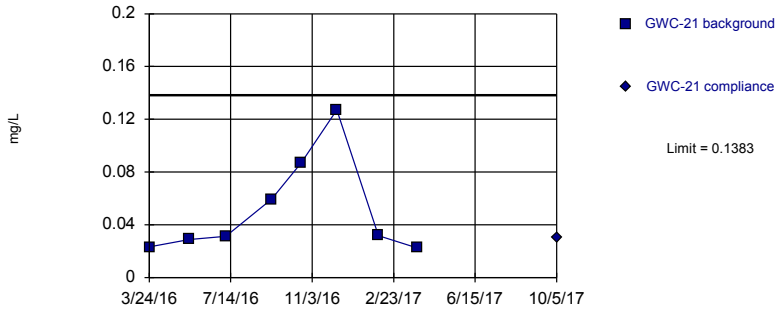
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.05138, Std. Dev.=0.03774, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7901, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-8	GWC-8
3/23/2016	0.0213 (J)	
5/18/2016	0.028 (J)	
7/6/2016	0.0231 (J)	
9/8/2016	0.0234 (J)	
10/18/2016	0.0228 (J)	
12/8/2016	0.0251 (J)	
2/2/2017	0.0238 (J)	
3/24/2017	0.0234 (J)	
10/5/2017		0.0329 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-18	GWC-18
3/24/2016	0.122	
5/18/2016	0.139	
7/7/2016	0.12	
9/8/2016	0.126	
10/19/2016	0.133	
12/8/2016	0.119	
2/2/2017	0.132	
3/27/2017	0.134	
10/5/2017		0.125

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-19	GWC-19
3/24/2016	0.173	
5/18/2016	0.186	
7/6/2016	0.184	
9/8/2016	0.173	
10/18/2016	0.171	
12/7/2016	0.203	
2/2/2017	0.187	
3/27/2017	0.182	
10/5/2017		0.166

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

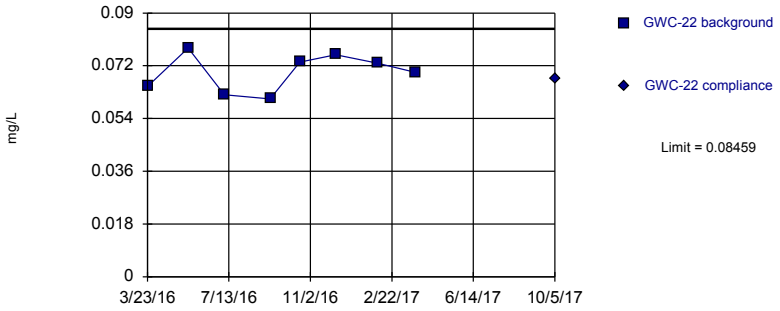
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-21	GWC-21
3/24/2016	0.0232 (J)	
5/18/2016	0.0289 (J)	
7/7/2016	0.0313 (J)	
9/8/2016	0.0593 (J)	
10/19/2016	0.087 (J)	
12/7/2016	0.127	
2/2/2017	0.0318 (J)	
3/27/2017	0.0225 (J)	
10/5/2017		0.0304 (J)

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.0697, Std. Dev.=0.006467, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9302, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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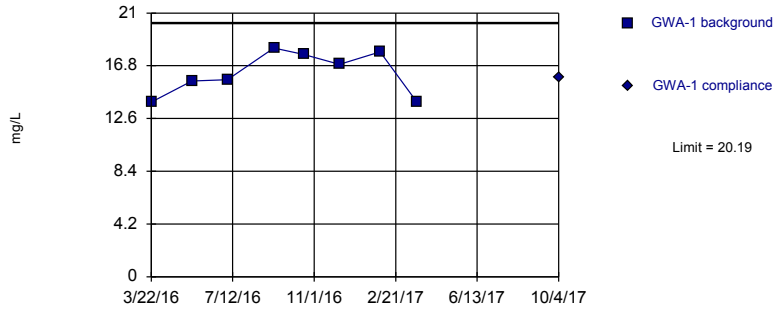
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.23, Std. Dev.=1.724, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8888, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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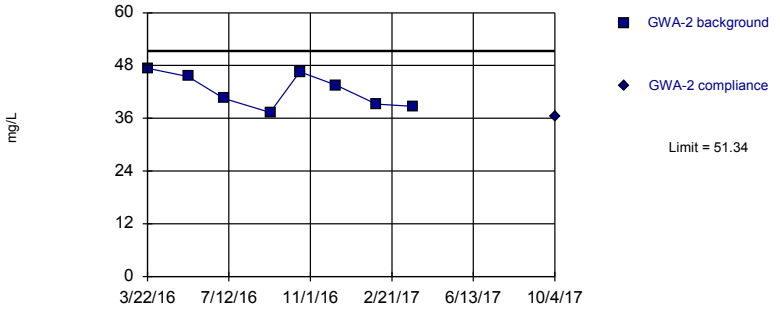
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=42.34, Std. Dev.=3.909, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9122, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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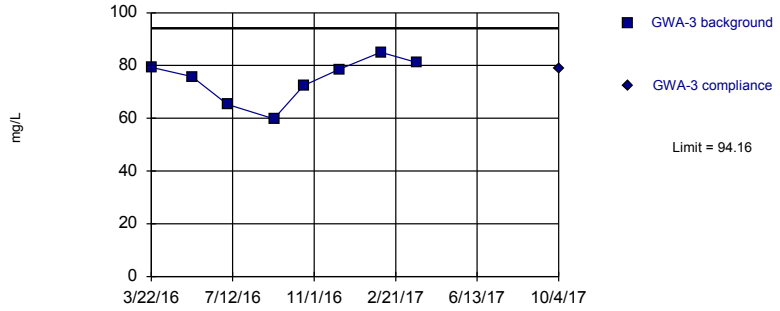
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=74.68, Std. Dev.=8.465, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9338, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-22	GWC-22
3/23/2016	0.0649 (J)	
5/18/2016	0.0781 (J)	
7/7/2016	0.0621 (J)	
9/8/2016	0.0607 (J)	
10/19/2016	0.0733 (J)	
12/7/2016	0.0758	
2/2/2017	0.0729	
3/27/2017	0.0698	
10/5/2017		0.0677

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-1	GWA-1
3/22/2016	13.9	
5/17/2016	15.6	
7/5/2016	15.7	
9/7/2016	18.2	
10/18/2016	17.7	
12/6/2016	16.9	
1/31/2017	17.9	
3/23/2017	13.9 (B-01)	
10/4/2017		15.9

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-2	GWA-2
3/22/2016	47.4	
5/17/2016	45.5	
7/5/2016	40.5	
9/7/2016	37.3	
10/18/2016	46.6	
12/7/2016	43.5	
1/31/2017	39.2	
3/23/2017	38.7 (B-01)	
10/4/2017		36.5

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

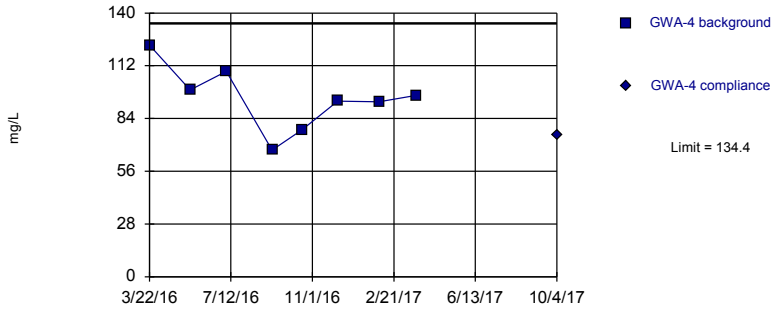
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-3	GWA-3
3/22/2016	79.3	
5/17/2016	75.8	
7/5/2016	65.3	
9/7/2016	59.8	
10/18/2016	72.4	
12/6/2016	78.6	
2/1/2017	85	
3/23/2017	81.2 (B-01)	
10/4/2017		78.8

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=94.84, Std. Dev.=17.21, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9727, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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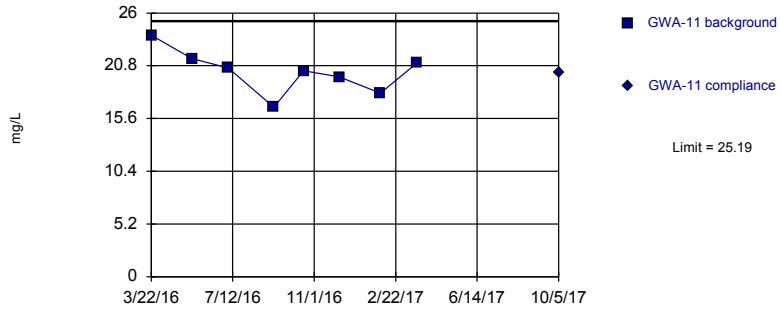
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=20.23, Std. Dev.=2.156, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9755, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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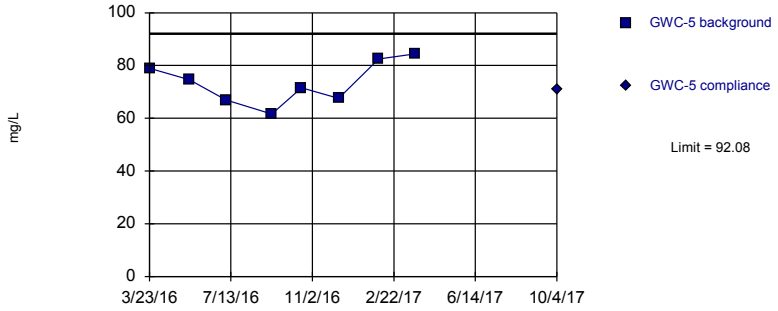
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=73.53, Std. Dev.=8.061, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9594, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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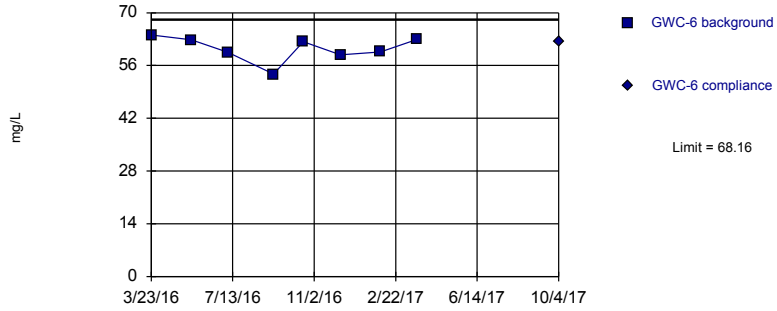
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=60.46, Std. Dev.=3.342, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.885, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-4	GWA-4
3/22/2016	123	
5/17/2016	99.2	
7/6/2016	109	
9/7/2016	67.2	
10/18/2016	77.9	
12/6/2016	93.3	
2/1/2017	92.8	
3/24/2017	96.3	
10/4/2017		75.1

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-11	GWA-11
3/22/2016	23.8	
5/17/2016	21.5	
7/6/2016	20.6	
9/7/2016	16.7	
10/18/2016	20.3	
12/6/2016	19.7	
2/1/2017	18.1	
3/24/2017	21.1	
10/5/2017		20.1

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-5	GWC-5
3/23/2016	79	
5/17/2016	74.6	
7/6/2016	66.9	
9/7/2016	61.6	
10/18/2016	71.6	
12/8/2016	67.6	
2/1/2017	82.5	
3/23/2017	84.4 (B-01)	
10/4/2017		70.8

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

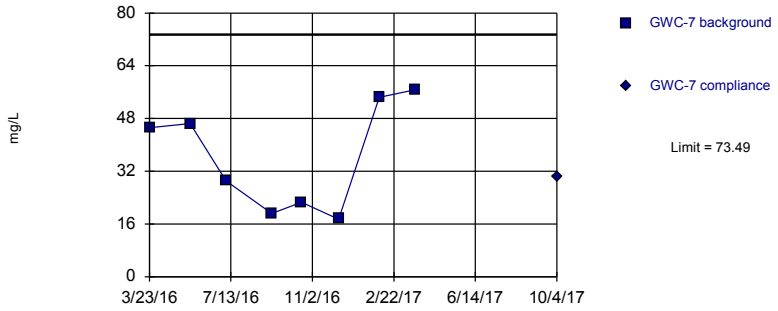
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-6	GWC-6
3/23/2016	64.1	
5/17/2016	62.8	
7/6/2016	59.5	
9/7/2016	53.7	
10/18/2016	62.3	
12/8/2016	58.8	
2/1/2017	59.6	
3/23/2017	62.9 (B-01)	
10/4/2017		62.4

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=36.41, Std. Dev.=16.11, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8805, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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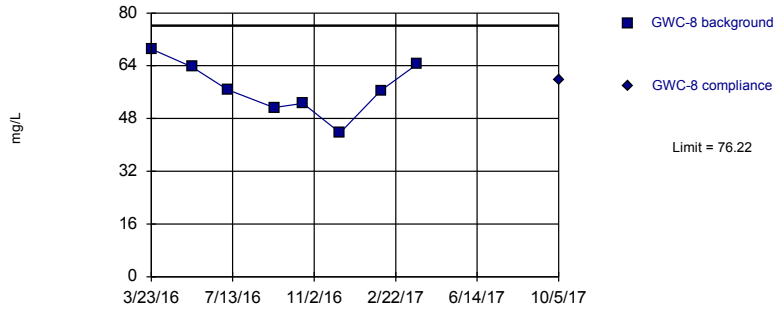
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=57.26, Std. Dev.=8.234, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9712, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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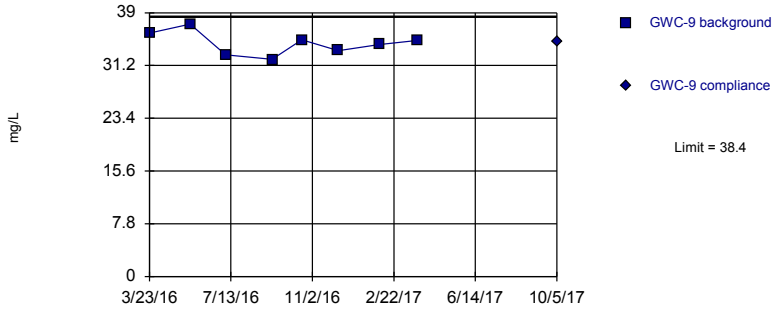
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=34.48, Std. Dev.=1.707, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9806, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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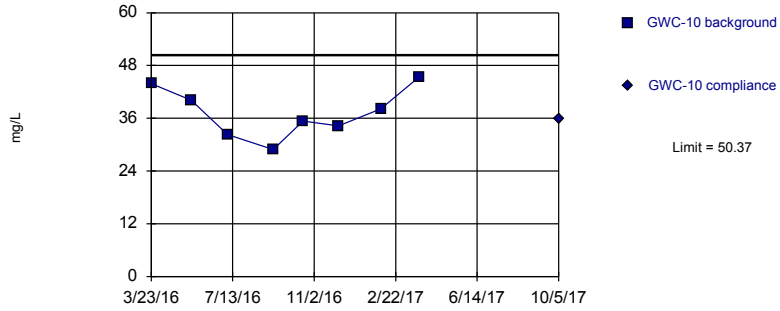
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=37.3, Std. Dev.=5.68, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9724, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-7	GWC-7
3/23/2016	45.2	
5/18/2016	46.5	
7/6/2016	29.1	
9/7/2016	19.2	
10/18/2016	22.6	
12/8/2016	17.5	
2/2/2017	54.4	
3/24/2017	56.8	
10/4/2017		30.5

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-8	GWC-8
3/23/2016	69.1	
5/18/2016	63.7	
7/6/2016	56.8	
9/8/2016	51.3	
10/18/2016	52.6	
12/8/2016	43.7	
2/2/2017	56.5	
3/24/2017	64.4	
10/5/2017		59.9

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-9	GWC-9
3/23/2016	36	
5/18/2016	37.3	
7/6/2016	32.8	
9/8/2016	32.1	
10/19/2016	35	
12/8/2016	33.4	
2/2/2017	34.3	
3/27/2017	34.9	
10/5/2017		34.7

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

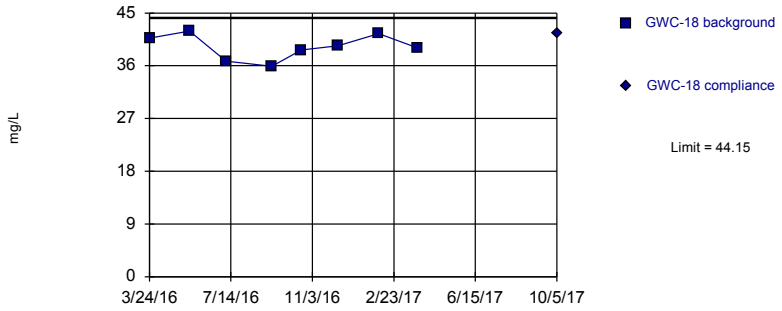
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-10	GWC-10
3/23/2016	43.9	
5/17/2016	40.1	
7/6/2016	32.3	
9/7/2016	28.9	
10/18/2016	35.4	
12/6/2016	34.3	
2/2/2017	38.1	
3/27/2017	45.4	
10/5/2017		35.8

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=39.25, Std. Dev.=2.13, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9468, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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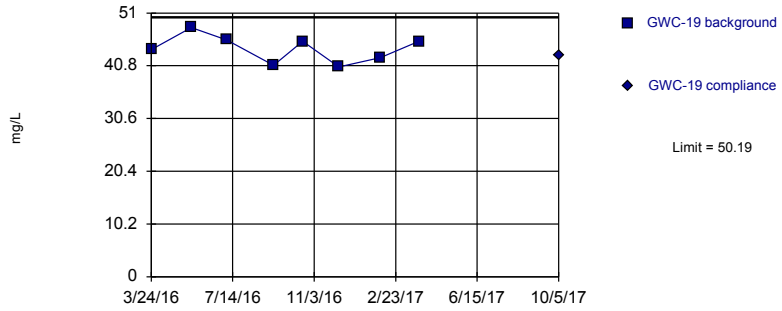
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=44.1, Std. Dev.=2.647, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9374, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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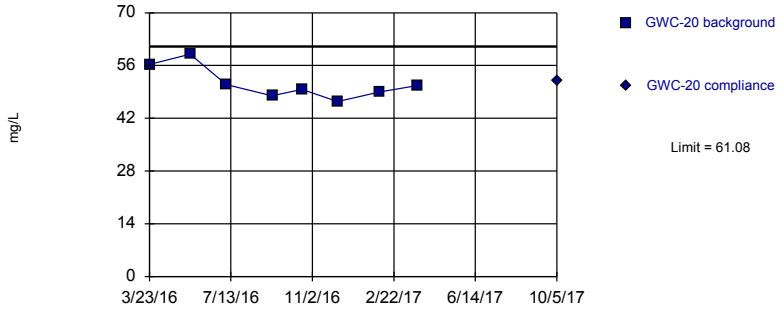
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=51.25, Std. Dev.=4.268, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8875, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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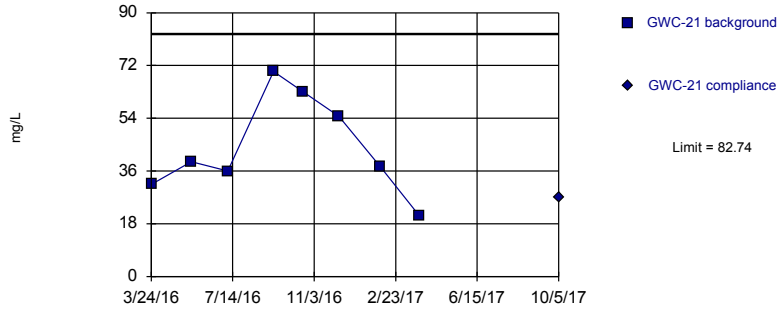
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=44.08, Std. Dev.=16.79, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9397, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-18	GWC-18
3/24/2016	40.7	
5/18/2016	41.9	
7/7/2016	36.8	
9/8/2016	35.9	
10/19/2016	38.7	
12/8/2016	39.4	
2/2/2017	41.5	
3/27/2017	39.1	
10/5/2017		41.6

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-19	GWC-19
3/24/2016	43.9	
5/18/2016	48.2	
7/6/2016	45.8	
9/8/2016	40.9	
10/18/2016	45.5	
12/7/2016	40.6	
2/2/2017	42.4	
3/27/2017	45.5	
10/5/2017		42.9

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-20	GWC-20
3/23/2016	56.3	
5/18/2016	59	
7/7/2016	50.9	
9/8/2016	48	
10/19/2016	49.7	
12/7/2016	46.4	
2/3/2017	49	
3/27/2017	50.7	
10/5/2017		52

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

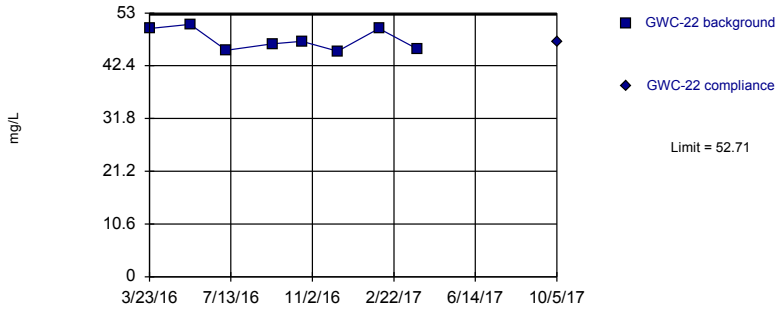
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-21	GWC-21
3/24/2016	31.4	
5/18/2016	39.2	
7/7/2016	36	
9/8/2016	70	
10/19/2016	63	
12/7/2016	54.7	
2/2/2017	37.4	
3/27/2017	20.9	
10/5/2017		26.8

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=47.65, Std. Dev.=2.199, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8626, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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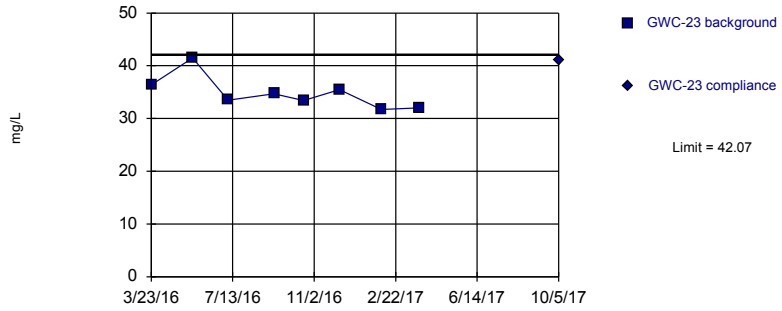
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=34.84, Std. Dev.=3.14, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8714, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Calcium Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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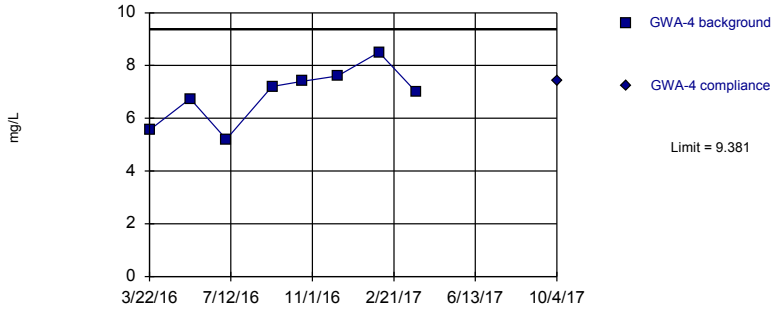
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.899, Std. Dev.=1.078, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9441, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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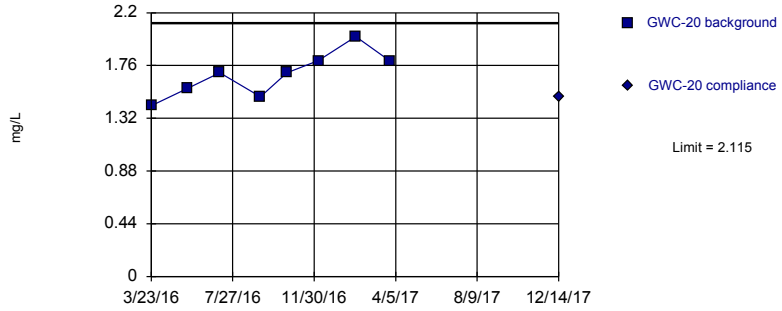
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.687, Std. Dev.=0.1858, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9678, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-22	GWC-22
3/23/2016	49.9	
5/18/2016	50.7	
7/7/2016	45.5	
9/8/2016	46.8	
10/19/2016	47.3	
12/7/2016	45.3	
2/2/2017	49.9	
3/27/2017	45.8	
10/5/2017		47.3

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-23	GWC-23
3/23/2016	36.4	
5/19/2016	41.5	
7/7/2016	33.5	
9/8/2016	34.7	
10/19/2016	33.4	
12/7/2016	35.5	
2/3/2017	31.7	
3/27/2017	32	
10/5/2017		41

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-4	GWA-4
3/22/2016	5.549	
5/17/2016	6.74	
7/6/2016	5.2 (B)	
9/7/2016	7.2 (B)	
10/18/2016	7.4	
12/6/2016	7.6	
2/1/2017	8.5	
3/24/2017	7	
10/4/2017		7.4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

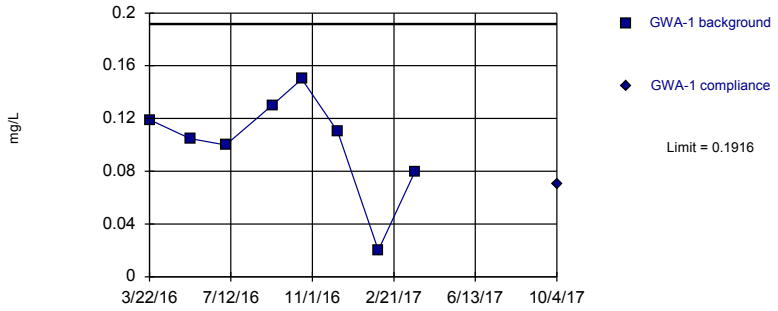
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-20	GWC-20
3/23/2016	1.4238	
5/18/2016	1.57	
7/7/2016	1.7 (B)	
9/8/2016	1.5	
10/19/2016	1.7	
12/7/2016	1.8	
2/3/2017	2	
3/27/2017	1.8	
12/14/2017		1.5 (R)

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1017, Std. Dev.=0.03903, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9026, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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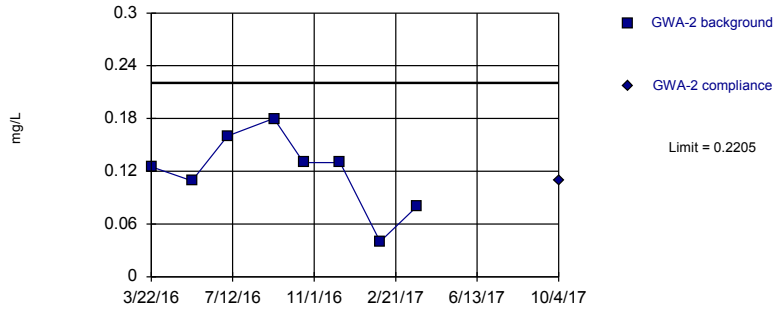
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1193, Std. Dev.=0.04398, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9589, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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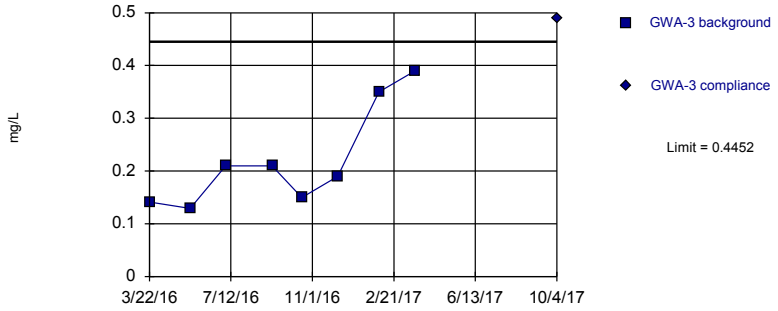
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2214, Std. Dev.=0.09723, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8369, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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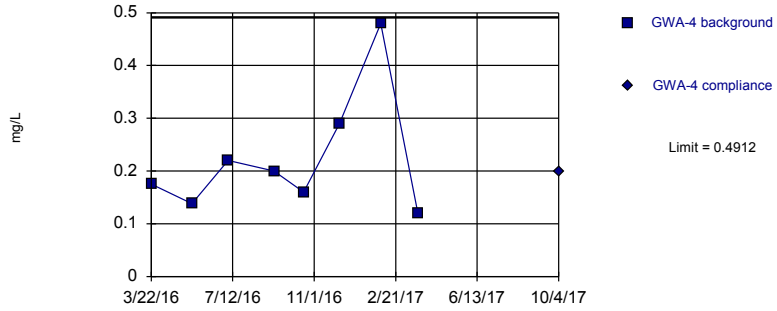
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.223, Std. Dev.=0.1165, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8109, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-1	GWA-1
3/22/2016	0.119 (J)	
5/17/2016	0.1049 (J)	
7/5/2016	0.1 (J)	
9/7/2016	0.13 (J)	
10/18/2016	0.15 (J)	
12/6/2016	0.11 (J)	
1/31/2017	0.02 (J)	
3/23/2017	0.08 (J)	
10/4/2017		0.07 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-2	GWA-2
3/22/2016	0.1252 (J)	
5/17/2016	0.1091 (J)	
7/5/2016	0.16 (J)	
9/7/2016	0.18 (J)	
10/18/2016	0.13 (J)	
12/7/2016	0.13 (J)	
1/31/2017	0.04 (J)	
3/23/2017	0.08 (J)	
10/4/2017		0.11 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-3	GWA-3
3/22/2016	0.1415 (J)	
5/17/2016	0.1293 (J)	
7/5/2016	0.21 (J)	
9/7/2016	0.21 (J)	
10/18/2016	0.15 (J)	
12/6/2016	0.19 (J)	
2/1/2017	0.35	
3/23/2017	0.39	
10/4/2017		0.49

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-4	GWA-4
3/22/2016	0.1754 (J)	
5/17/2016	0.1385 (J)	
7/6/2016	0.22 (J)	
9/7/2016	0.2 (J)	
10/18/2016	0.16 (J)	
12/6/2016	0.29 (J)	
2/1/2017	0.48	
3/24/2017	0.12 (J)	
10/4/2017		0.2 (J)

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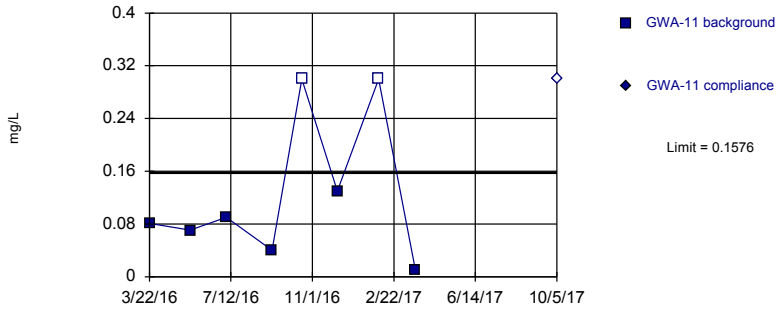
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.07028, Std. Dev.=0.03791, n=8, 25% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8221, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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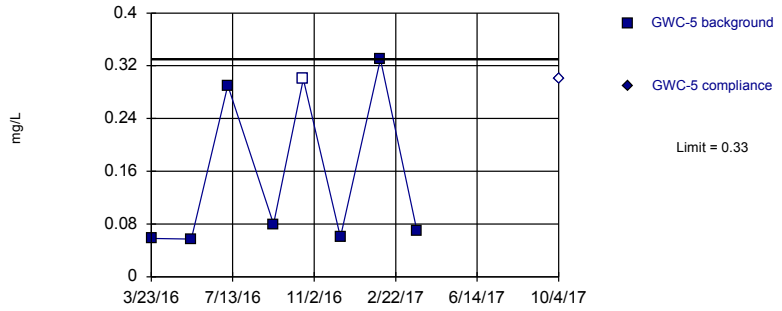
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 12.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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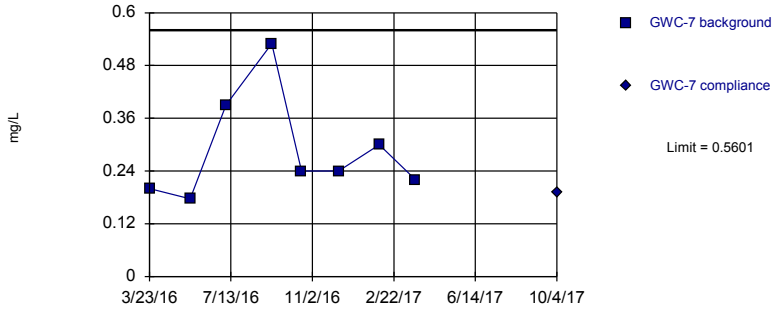
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.2871, Std. Dev.=0.1186, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8416, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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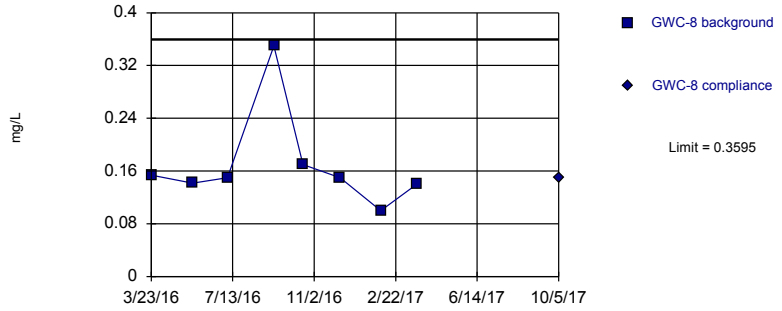
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=-1.839, Std. Dev.=0.3546, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7907, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-11	GWA-11
3/22/2016	0.0811 (J)	
5/17/2016	0.0706 (J)	
7/6/2016	0.09 (J)	
9/7/2016	0.04 (J)	
10/18/2016	<0.3 (*)	
12/6/2016	0.13 (J)	
2/1/2017	<0.3	
3/24/2017	0.01 (J)	
10/5/2017		<0.3

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-5	GWC-5
3/23/2016	0.0582 (J)	
5/17/2016	0.0571 (J)	
7/6/2016	0.29 (J)	
9/7/2016	0.08 (J)	
10/18/2016	<0.3 (*)	
12/8/2016	0.06 (J)	
2/1/2017	0.33	
3/23/2017	0.07 (J)	
10/4/2017		<0.3

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-7	GWC-7
3/23/2016	0.2004 (J)	
5/18/2016	0.1766 (J)	
7/6/2016	0.39	
9/7/2016	0.53	
10/18/2016	0.24 (J)	
12/8/2016	0.24 (J)	
2/2/2017	0.3 (J)	
3/24/2017	0.22 (J)	
10/4/2017		0.19 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

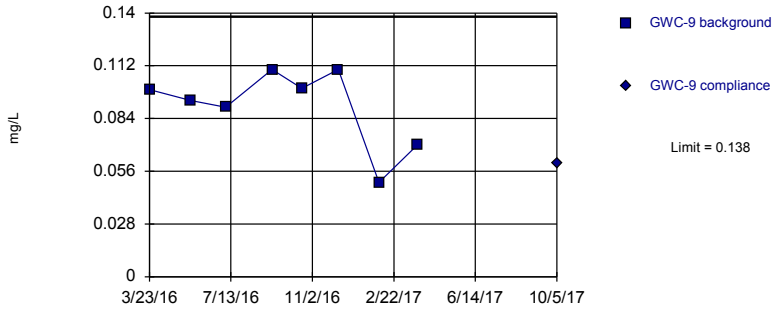
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-8	GWC-8
3/23/2016	0.1537 (J)	
5/19/2016	0.1414 (J)	
7/6/2016	0.15 (J)	
9/8/2016	0.35	
10/18/2016	0.17 (J)	
12/8/2016	0.15 (J)	
2/2/2017	0.1 (J)	
3/24/2017	0.14 (J)	
10/5/2017		0.15 (J)

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.09036, Std. Dev.=0.0207, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8685, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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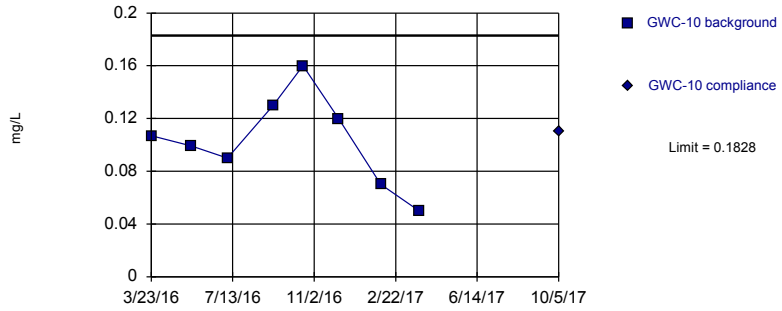
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1033, Std. Dev.=0.03457, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9949, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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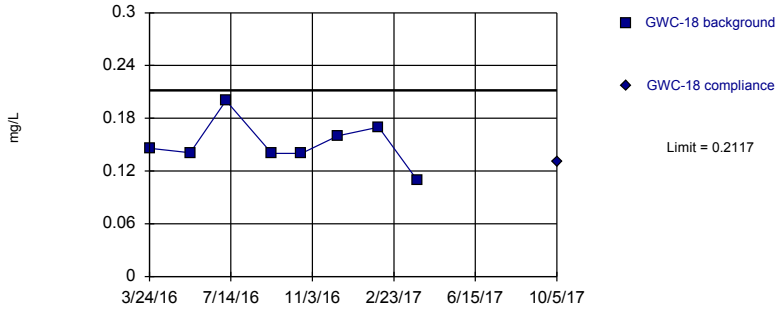
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1508, Std. Dev.=0.02645, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.937, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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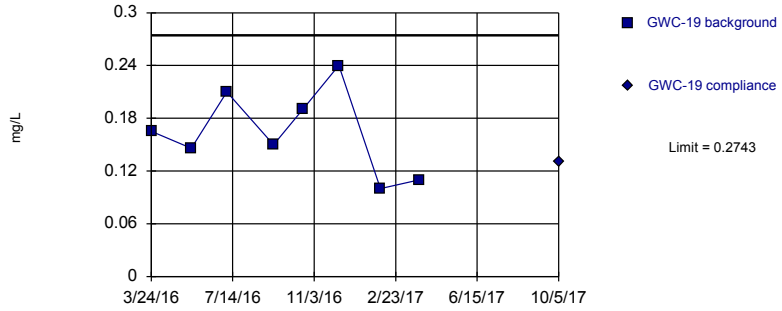
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1639, Std. Dev.=0.04797, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9688, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-9	GWC-9
3/23/2016	0.0993 (J)	
5/19/2016	0.0936 (J)	
7/6/2016	0.09 (J)	
9/8/2016	0.11 (J)	
10/19/2016	0.1 (J)	
12/8/2016	0.11 (J)	
2/2/2017	0.05 (J)	
3/27/2017	0.07 (J)	
10/5/2017		0.06 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-10	GWC-10
3/23/2016	0.1069 (J)	
5/17/2016	0.0991 (J)	
7/6/2016	0.09 (J)	
9/7/2016	0.13 (J)	
10/18/2016	0.16 (J)	
12/6/2016	0.12 (J)	
2/2/2017	0.07 (J)	
3/27/2017	0.05 (J)	
10/5/2017		0.11 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-18	GWC-18
3/24/2016	0.1459 (J)	
5/19/2016	0.1408 (J)	
7/7/2016	0.2 (J)	
9/8/2016	0.14 (J)	
10/19/2016	0.14 (J)	
12/8/2016	0.16 (J)	
2/2/2017	0.17 (J)	
3/27/2017	0.11 (J)	
10/5/2017		0.13 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

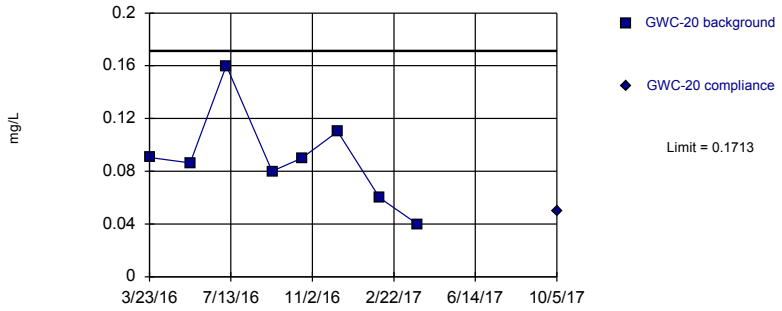
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-19	GWC-19
3/24/2016	0.1652 (J)	
5/18/2016	0.1459 (J)	
7/6/2016	0.21 (J)	
9/8/2016	0.15 (J)	
10/18/2016	0.19 (J)	
12/7/2016	0.24 (J)	
2/2/2017	0.1 (J)	
3/27/2017	0.11 (J)	
10/5/2017		0.13 (J)

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.08961, Std. Dev.=0.03548, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.929, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

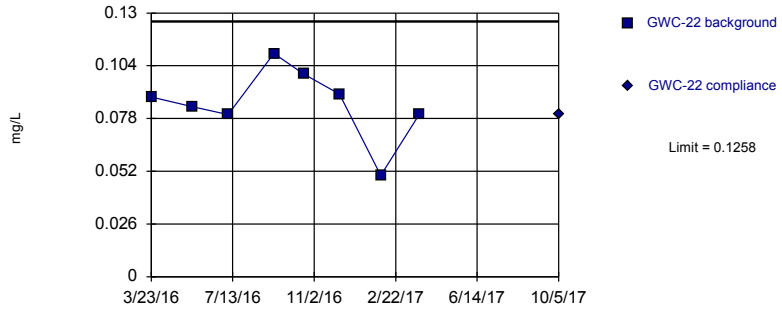
Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.08531, Std. Dev.=0.01758, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9214, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

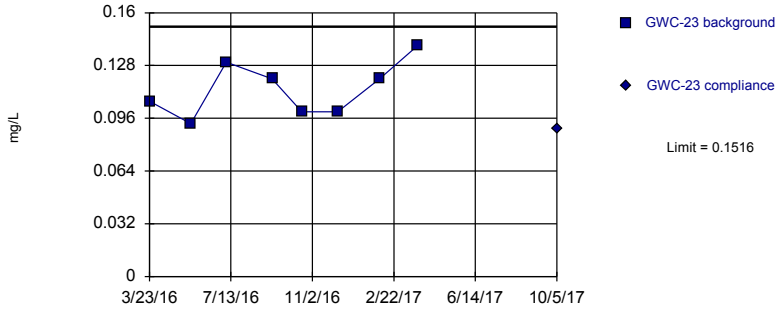
Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1137, Std. Dev.=0.01648, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9409, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

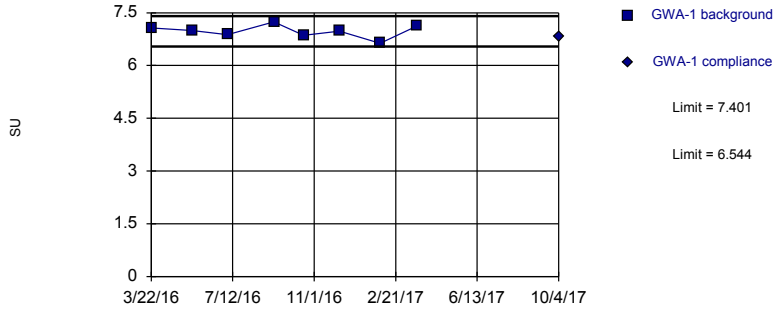
Constituent: Fluoride Analysis Run 1/25/2018 10:18 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.973, Std. Dev.=0.186, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9741, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-20	GWC-20
3/23/2016	0.0905 (J)	
5/18/2016	0.0864 (J)	
7/7/2016	0.16 (J)	
9/8/2016	0.08 (J)	
10/19/2016	0.09 (J)	
12/7/2016	0.11 (J)	
2/3/2017	0.06 (J)	
3/27/2017	0.04 (J)	
10/5/2017		0.05 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-22	GWC-22
3/23/2016	0.0886 (J)	
5/18/2016	0.0839 (J)	
7/7/2016	0.08 (J)	
9/8/2016	0.11 (J)	
10/19/2016	0.1 (J)	
12/7/2016	0.09 (J)	
2/2/2017	0.05 (J)	
3/27/2017	0.08 (J)	
10/5/2017		0.08 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-23	GWC-23
3/23/2016	0.1064 (J)	
5/19/2016	0.0928 (J)	
7/7/2016	0.13 (J)	
9/8/2016	0.12 (J)	
10/19/2016	0.1 (J)	
12/7/2016	0.1 (J)	
2/3/2017	0.12 (J)	
3/27/2017	0.14 (J)	
10/5/2017		0.09 (J)

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-1	GWA-1
3/22/2016	7.07	
5/17/2016	7	
7/5/2016	6.88	
9/7/2016	7.24	
10/18/2016	6.86	
12/6/2016	6.98	
1/31/2017	6.63	
3/23/2017	7.12	
10/4/2017		6.83

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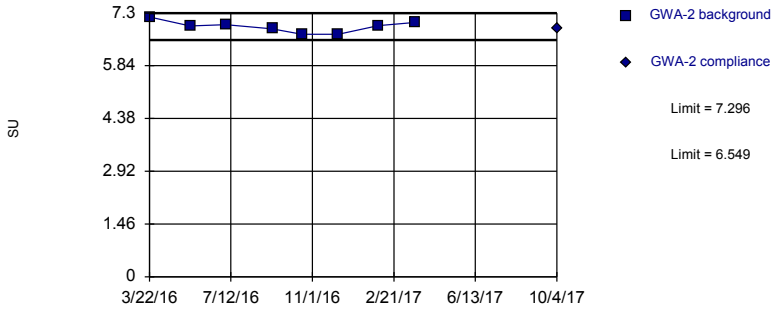
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.923, Std. Dev.=0.1621, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9425, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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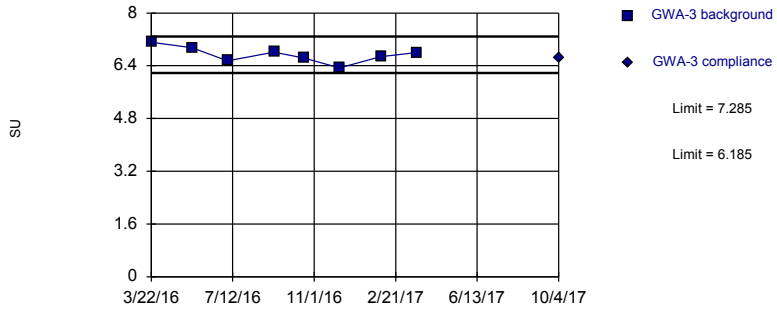
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.735, Std. Dev.=0.2387, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9914, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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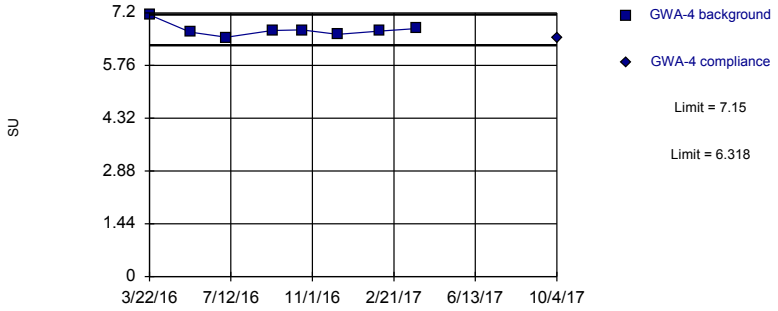
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.734, Std. Dev.=0.1807, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8141, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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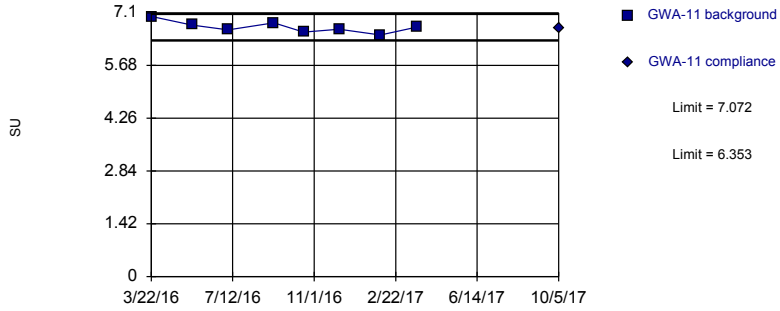
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.713, Std. Dev.=0.1561, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9747, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-2	GWA-2
3/22/2016	7.19	
5/17/2016	6.94	
7/5/2016	6.98	
9/7/2016	6.86	
10/18/2016	6.71	
12/7/2016	6.71	
1/31/2017	6.95	
3/23/2017	7.04	
10/4/2017		6.86

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-3	GWA-3
3/22/2016	7.11	
5/17/2016	6.95	
7/5/2016	6.55	
9/7/2016	6.81	
10/18/2016	6.64	
12/6/2016	6.34	
2/1/2017	6.68	
3/23/2017	6.8	
10/4/2017		6.64

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-4	GWA-4
3/22/2016	7.14	
5/17/2016	6.67	
7/6/2016	6.53	
9/7/2016	6.72	
10/18/2016	6.73	
12/6/2016	6.61	
2/1/2017	6.7	
3/24/2017	6.77	
10/4/2017		6.52

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

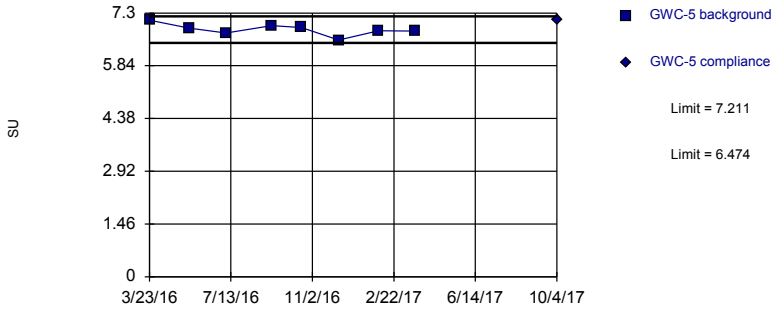
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-11	GWA-11
3/22/2016	7	
5/17/2016	6.77	
7/6/2016	6.64	
9/7/2016	6.83	
10/18/2016	6.58	
12/6/2016	6.66	
2/1/2017	6.5	
3/24/2017	6.72	
10/5/2017		6.69

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.843, Std. Dev.=0.1602, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9708, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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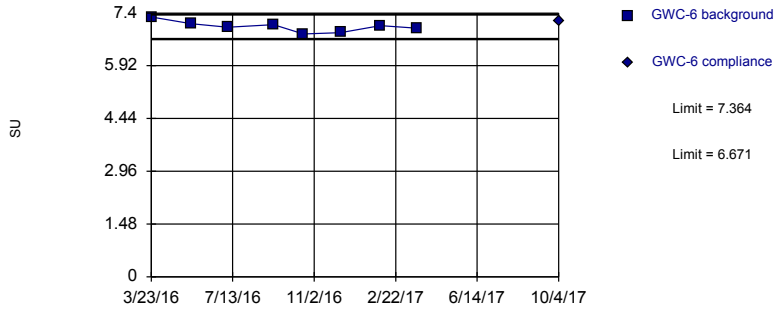
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.018, Std. Dev.=0.1505, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9585, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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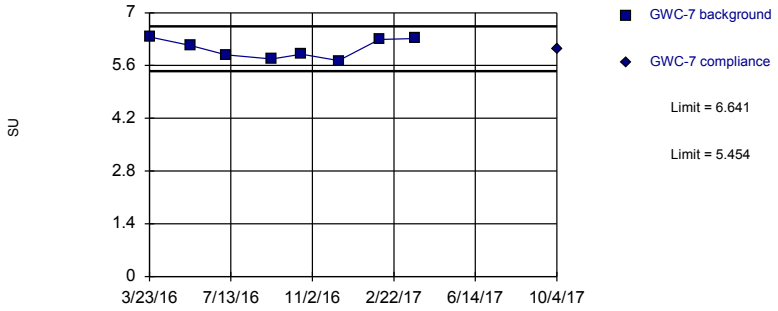
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.048, Std. Dev.=0.2578, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8796, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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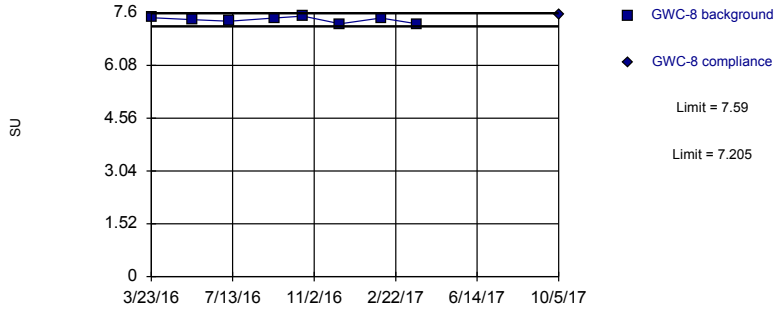
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.398, Std. Dev.=0.08362, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8888, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-5	GWC-5
3/23/2016	7.1	
5/17/2016	6.88	
7/6/2016	6.75	
9/7/2016	6.95	
10/18/2016	6.9	
12/8/2016	6.55	
2/1/2017	6.81	
3/23/2017	6.8	
10/4/2017		7.12

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-6	GWC-6
3/23/2016	7.29	
5/17/2016	7.1	
7/6/2016	7	
9/7/2016	7.07	
10/18/2016	6.81	
12/8/2016	6.85	
2/1/2017	7.05	
3/23/2017	6.97	
10/4/2017		7.17

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-7	GWC-7
3/23/2016	6.36	
5/19/2016	6.13	
7/6/2016	5.88	
9/7/2016	5.77	
10/18/2016	5.9	
12/8/2016	5.73	
2/2/2017	6.29	
3/24/2017	6.32	
10/4/2017		6.03

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

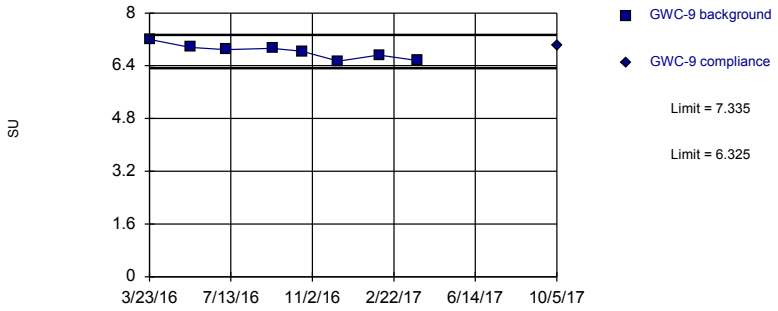
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-8	GWC-8
3/23/2016	7.46	
5/18/2016	7.4	
7/8/2016	7.36	
9/8/2016	7.45	
10/18/2016	7.5	
12/8/2016	7.28	
2/2/2017	7.45	
3/24/2017	7.28	
10/5/2017		7.53

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.83, Std. Dev.=0.2193, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9497, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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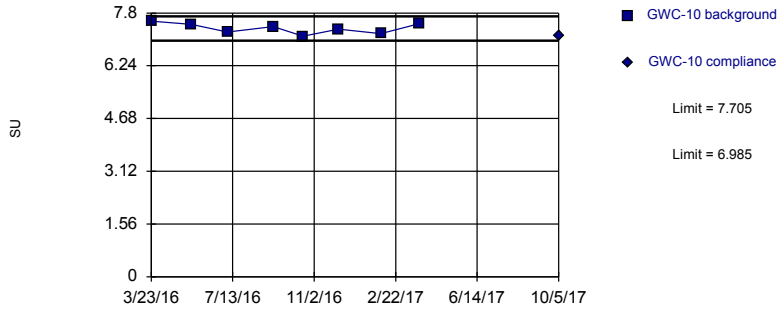
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.345, Std. Dev.=0.1566, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.965, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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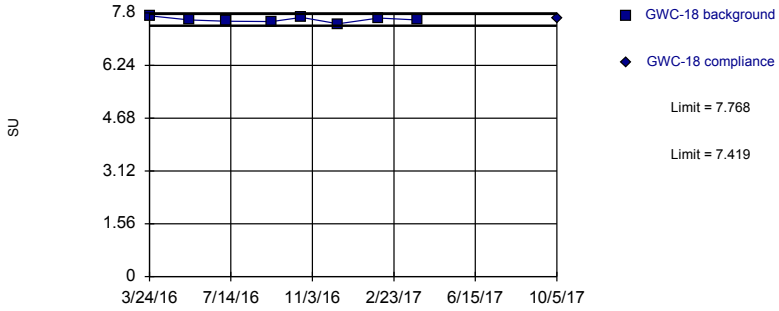
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.594, Std. Dev.=0.07577, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9844, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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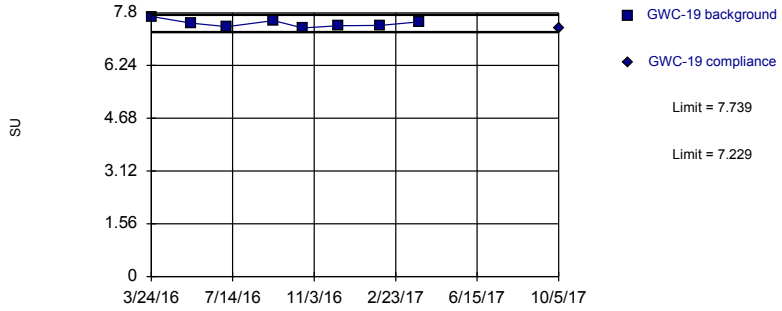
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.484, Std. Dev.=0.1107, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9485, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-9	GWC-9
3/23/2016	7.2	
5/18/2016	6.96	
7/6/2016	6.89	
9/8/2016	6.93	
10/19/2016	6.84	
12/8/2016	6.54	
2/2/2017	6.72	
3/27/2017	6.56	
10/5/2017		7.03

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-10	GWC-10
3/23/2016	7.56	
5/17/2016	7.46	
7/6/2016	7.24	
9/7/2016	7.4	
10/18/2016	7.11	
12/6/2016	7.32	
2/2/2017	7.19	
3/27/2017	7.48	
10/5/2017		7.13

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-18	GWC-18
3/24/2016	7.71	
5/18/2016	7.59	
7/7/2016	7.55	
9/8/2016	7.54	
10/19/2016	7.66	
12/8/2016	7.47	
2/2/2017	7.64	
3/27/2017	7.59	
10/5/2017		7.65

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

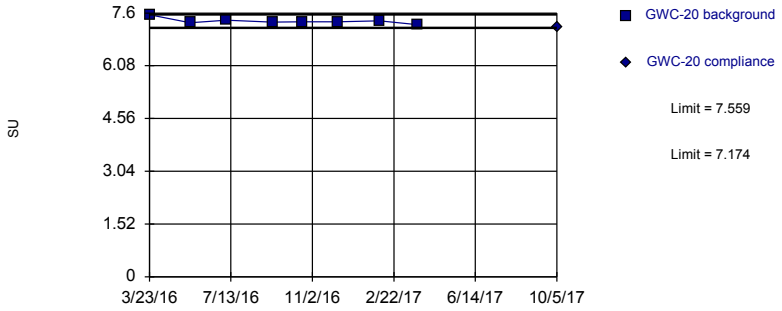
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-19	GWC-19
3/24/2016	7.69	
5/18/2016	7.49	
5/19/2016	7.44 (O)	
7/6/2016	7.39	
9/8/2016	7.57	
10/18/2016	7.35	
12/7/2016	7.42	
2/2/2017	7.43	
3/27/2017	7.53	
10/5/2017		7.36

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.366, Std. Dev.=0.08366, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8403, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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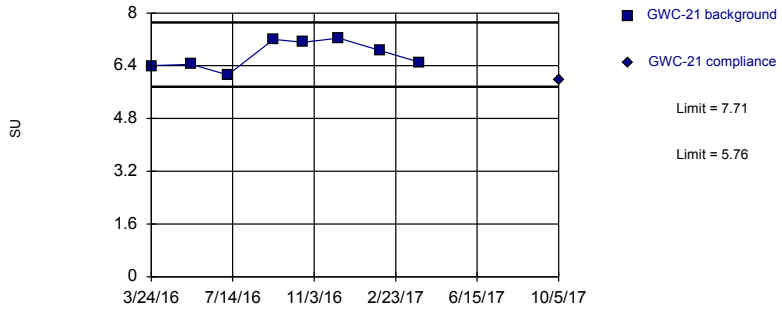
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.735, Std. Dev.=0.4235, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9073, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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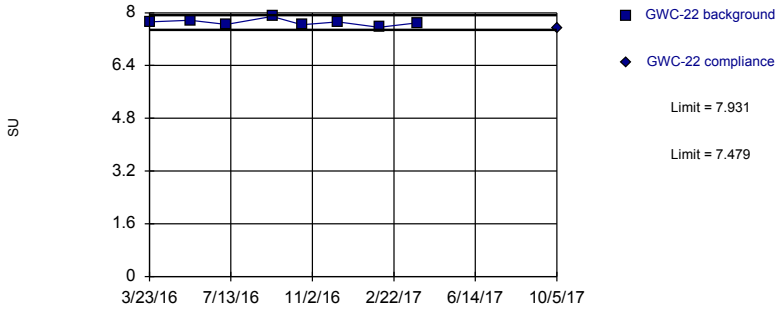
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.705, Std. Dev.=0.09813, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9627, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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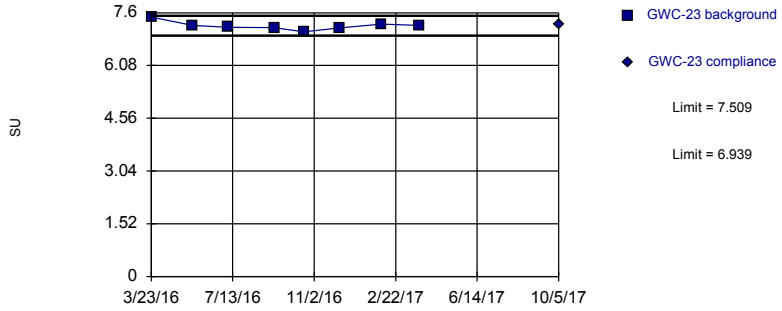
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.224, Std. Dev.=0.1239, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8984, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: pH Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-20	GWC-20
3/23/2016	7.55	
5/18/2016	7.32	
7/7/2016	7.39	
9/8/2016	7.34	
10/19/2016	7.35	
12/7/2016	7.35	
2/3/2017	7.37	
3/27/2017	7.26	
10/5/2017		7.2

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-21	GWC-21
3/24/2016	6.4	
5/18/2016	6.44	
7/7/2016	6.12	
9/8/2016	7.2	
10/19/2016	7.11	
12/7/2016	7.24	
2/2/2017	6.86	
3/27/2017	6.51	
10/5/2017		5.97

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-22	GWC-22
3/23/2016	7.72	
5/18/2016	7.77	
7/7/2016	7.65	
9/8/2016	7.89	
10/19/2016	7.64	
12/7/2016	7.72	
2/2/2017	7.56	
3/27/2017	7.69	
10/5/2017		7.53

Prediction Limit

Constituent: pH (SU) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

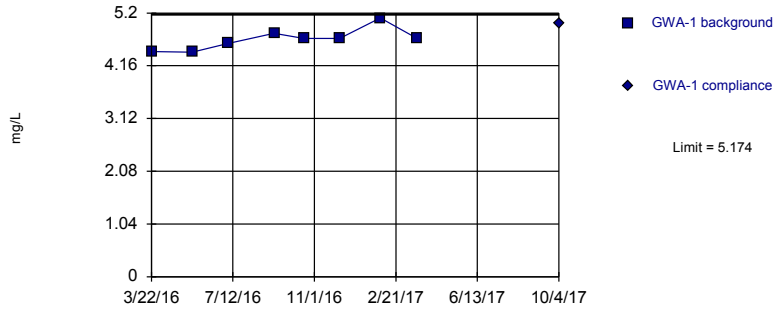
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-23	GWC-23
3/23/2016	7.48	
5/19/2016	7.24	
7/7/2016	7.18	
9/8/2016	7.17	
10/19/2016	7.05	
12/7/2016	7.16	
2/3/2017	7.27	
3/27/2017	7.24	
10/5/2017		7.25

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.684, Std. Dev.=0.2131, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9054, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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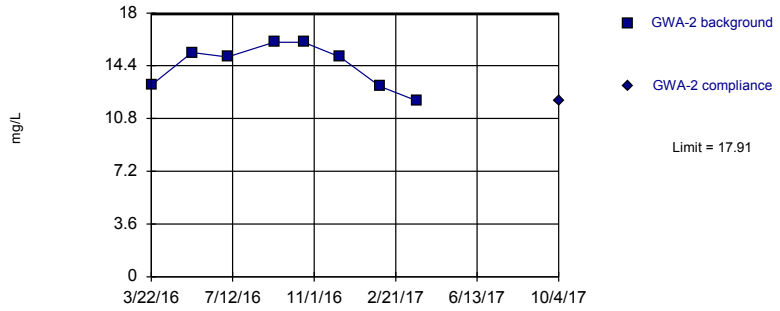
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=14.42, Std. Dev.=1.517, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8762, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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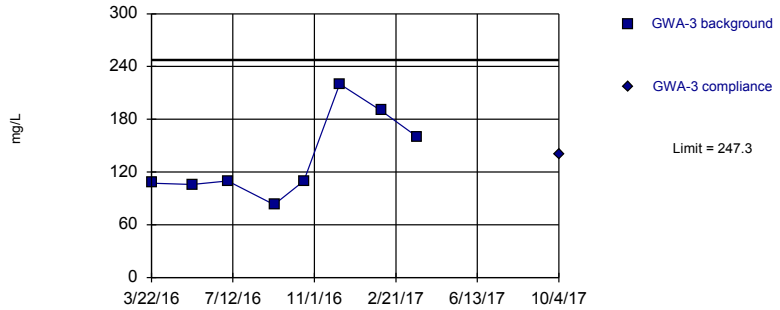
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=135.8, Std. Dev.=48.44, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8572, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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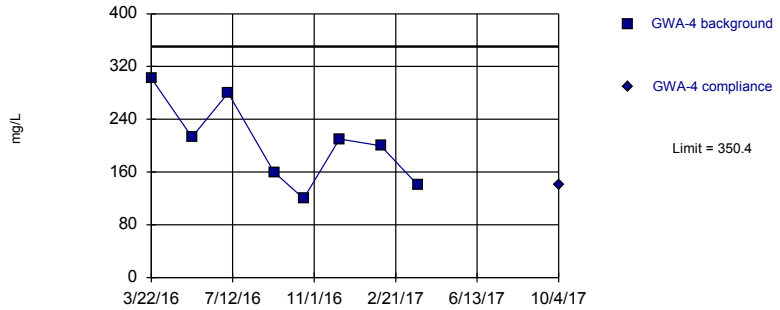
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=203.2, Std. Dev.=63.98, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9435, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-1	GWA-1
3/22/2016	4.4409	
5/17/2016	4.43	
7/5/2016	4.6	
9/7/2016	4.8	
10/18/2016	4.7	
12/6/2016	4.7	
1/31/2017	5.1 (B-01)	
3/23/2017	4.7	
10/4/2017		5

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-2	GWA-2
3/22/2016	13.0789	
5/17/2016	15.3	
7/5/2016	15	
9/7/2016	16	
10/18/2016	16	
12/7/2016	15	
1/31/2017	13 (B-01)	
3/23/2017	12	
10/4/2017		12

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-3	GWA-3
3/22/2016	107.476	
5/17/2016	106	
7/5/2016	110	
9/7/2016	83	
10/18/2016	110	
12/6/2016	220	
2/1/2017	190	
3/23/2017	160	
10/4/2017		140

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

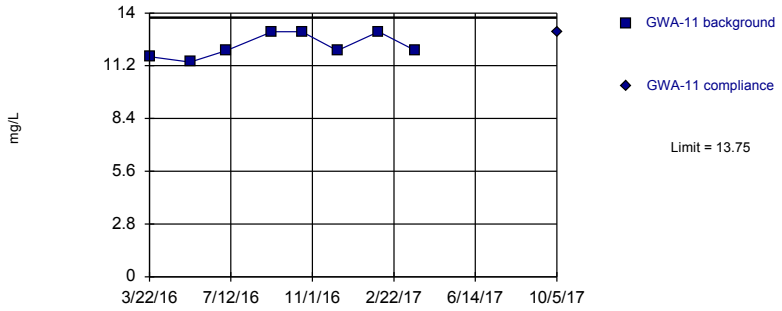
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-4	GWA-4
3/22/2016	302.2975	
5/17/2016	213	
7/6/2016	280	
9/7/2016	160	
10/18/2016	120	
12/6/2016	210	
2/1/2017	200	
3/24/2017	140	
10/4/2017		140

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=12.26, Std. Dev.=0.6457, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8332, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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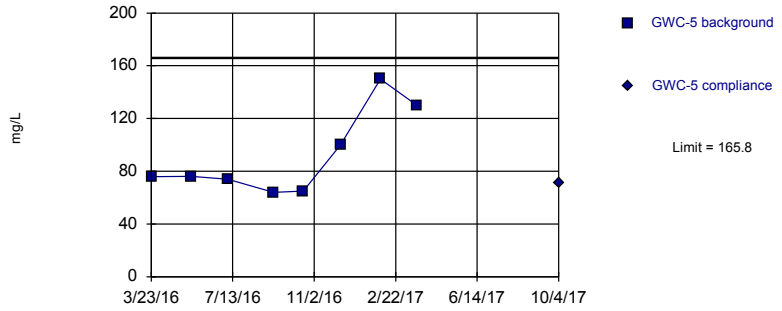
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=91.9, Std. Dev.=32.1, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8252, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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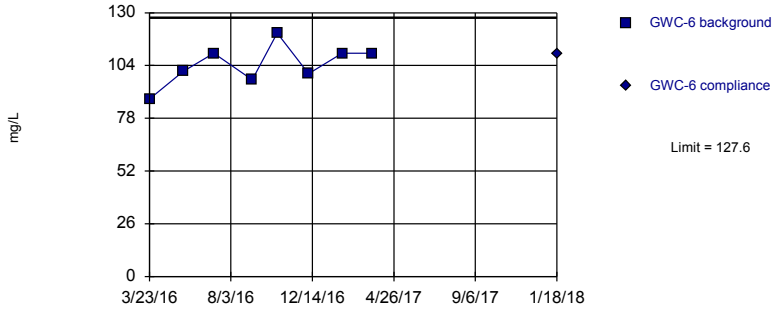
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=104.4, Std. Dev.=10.06, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9561, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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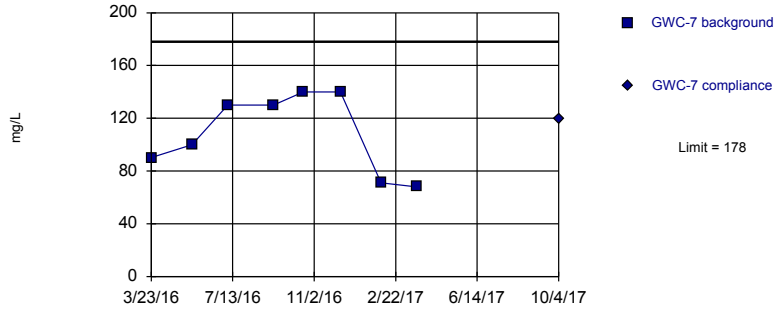
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=108.7, Std. Dev.=30.15, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8613, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-11	GWA-11
3/22/2016	11.6823	
5/17/2016	11.4	
7/6/2016	12	
9/7/2016	13	
10/18/2016	13	
12/6/2016	12	
2/1/2017	13	
3/24/2017	12	
10/5/2017		13

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-5	GWC-5
3/23/2016	76.011	
5/17/2016	76.2	
7/6/2016	74	
9/7/2016	64	
10/18/2016	65	
12/8/2016	100	
2/1/2017	150	
3/23/2017	130	
10/4/2017		71

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-6	GWC-6
3/23/2016	87.512	
5/17/2016	101	
7/6/2016	110	
9/7/2016	97	
10/18/2016	120	
12/8/2016	100	
2/1/2017	110	
3/23/2017	110	
1/18/2018		110 (R)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

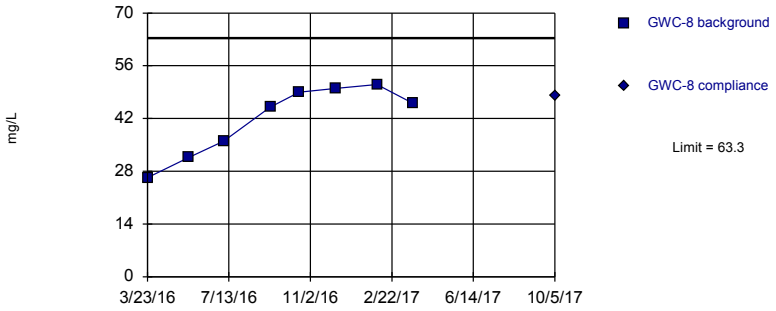
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-7	GWC-7
3/23/2016	90.229	
5/18/2016	100	
7/6/2016	130	
9/7/2016	130	
10/18/2016	140	
12/8/2016	140	
2/2/2017	71	
3/24/2017	68	
10/4/2017		120

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=41.88, Std. Dev.=9.305, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8754, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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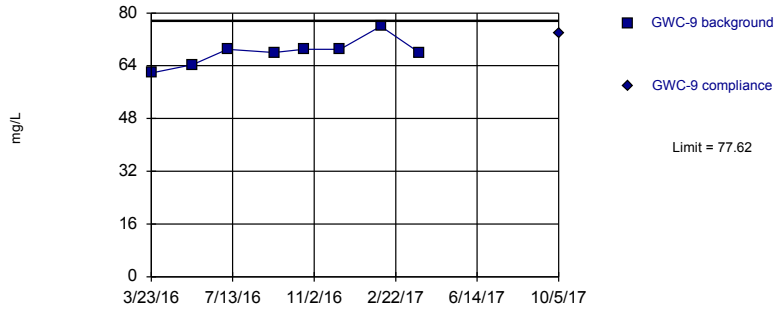
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=68.14, Std. Dev.=4.115, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8933, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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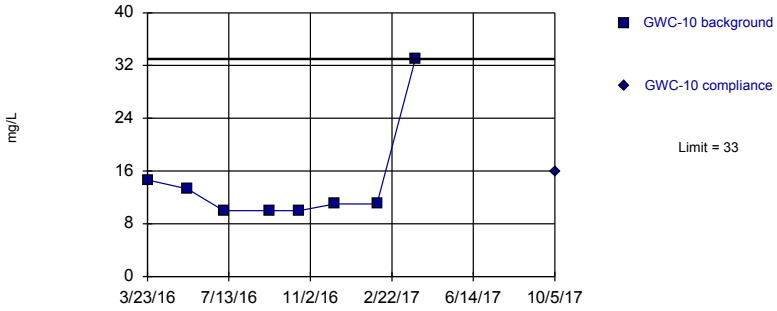
Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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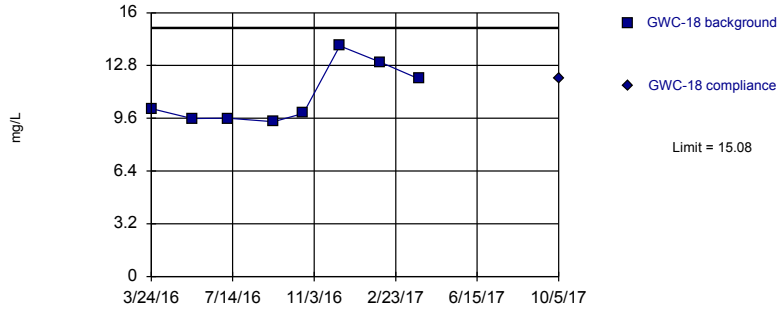
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=10.96, Std. Dev.=1.789, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8254, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-8	GWC-8
3/23/2016	26.3455	
5/19/2016	31.7 (L1)	
7/6/2016	36	
9/8/2016	45	
10/18/2016	49	
12/8/2016	50	
2/2/2017	51	
3/24/2017	46	
10/5/2017		48

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-9	GWC-9
3/23/2016	61.8335	
5/19/2016	64.3	
7/6/2016	69	
9/8/2016	68	
10/19/2016	69	
12/8/2016	69	
2/2/2017	76	
3/27/2017	68	
10/5/2017		74

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-10	GWC-10
3/23/2016	14.6529	
5/17/2016	13.3	
7/6/2016	10	
9/7/2016	10	
10/18/2016	10	
12/6/2016	11	
2/2/2017	11	
3/27/2017	33	
10/5/2017		16

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-18	GWC-18
3/24/2016	10.1818	
5/19/2016	9.58	
7/7/2016	9.6	
9/8/2016	9.4	
10/19/2016	9.9	
12/8/2016	14	
2/2/2017	13	
3/27/2017	12	
10/5/2017		12

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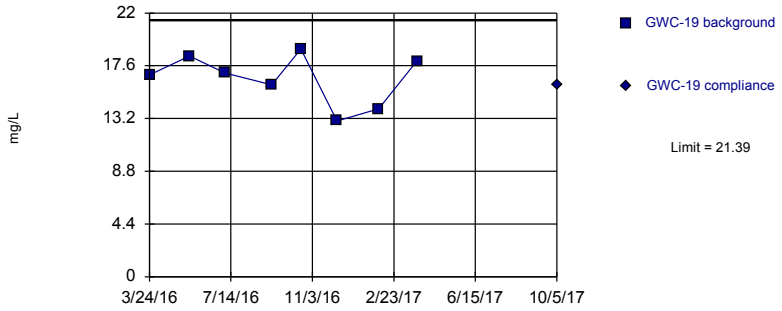
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=16.53, Std. Dev.=2.112, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9272, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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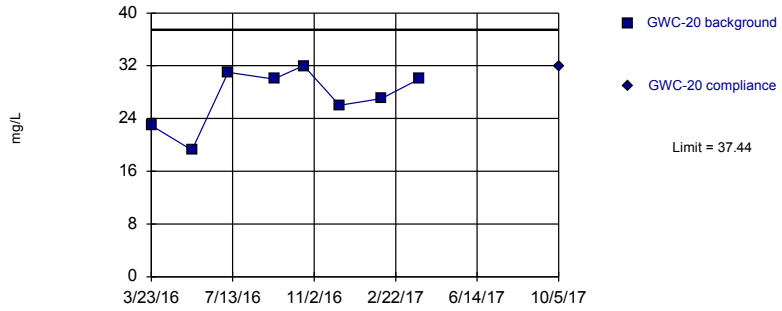
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=27.27, Std. Dev.=4.416, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9113, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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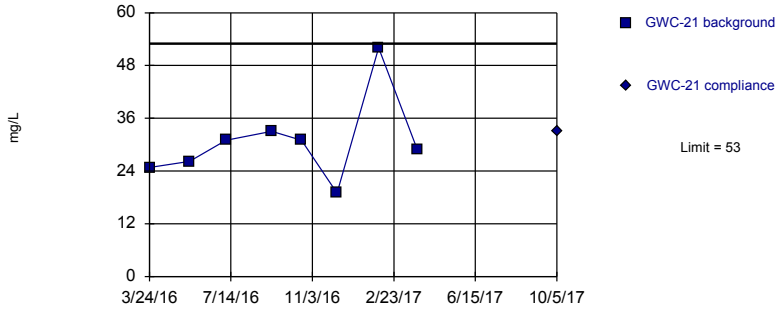
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=30.75, Std. Dev.=9.665, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8455, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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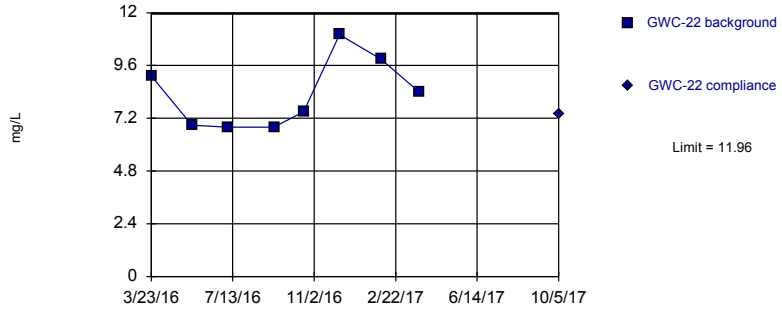
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=8.3, Std. Dev.=1.59, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8881, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-19	GWC-19
3/24/2016	16.8473	
5/18/2016	18.4	
7/6/2016	17	
9/8/2016	16	
10/18/2016	19	
12/7/2016	13	
2/2/2017	14	
3/27/2017	18	
10/5/2017		16

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-20	GWC-20
3/23/2016	22.9683	
5/18/2016	19.2	
7/7/2016	31	
9/8/2016	30	
10/19/2016	32	
12/7/2016	26	
2/3/2017	27	
3/27/2017	30	
10/5/2017		32

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-21	GWC-21
3/24/2016	24.8075	
5/18/2016	26.2	
7/7/2016	31	
9/8/2016	33	
10/19/2016	31	
12/7/2016	19	
2/2/2017	52	
3/27/2017	29	
10/5/2017		33

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

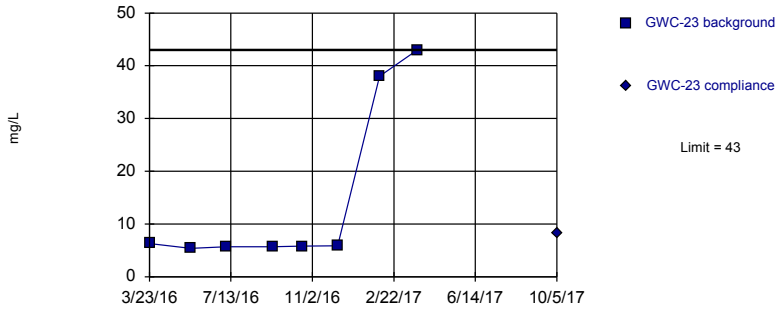
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-22	GWC-22
3/23/2016	9.1183	
5/18/2016	6.88	
7/7/2016	6.8	
9/8/2016	6.8	
10/19/2016	7.5	
12/7/2016	11	
2/2/2017	9.9	
3/27/2017	8.4	
10/5/2017		7.4

Within Limit

Prediction Limit

Intrawell Non-parametric



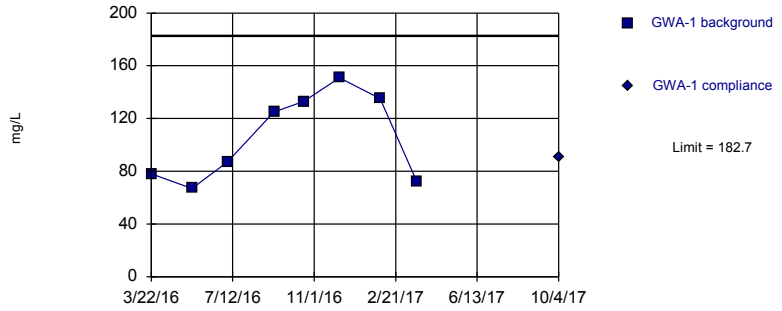
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Sulfate Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Within Limit

Prediction Limit

Intrawell Parametric



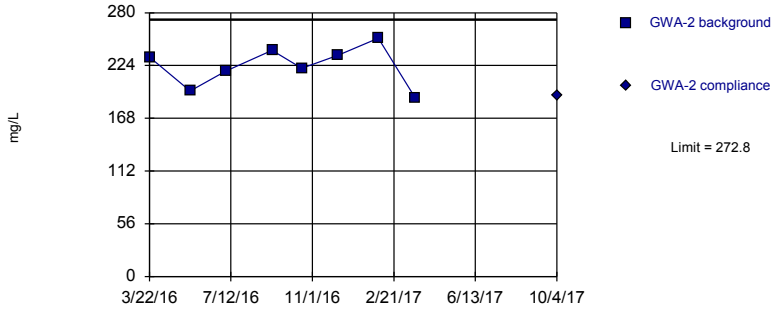
Background Data Summary: Mean=106, Std. Dev.=33.33, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8748, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Within Limit

Prediction Limit

Intrawell Parametric



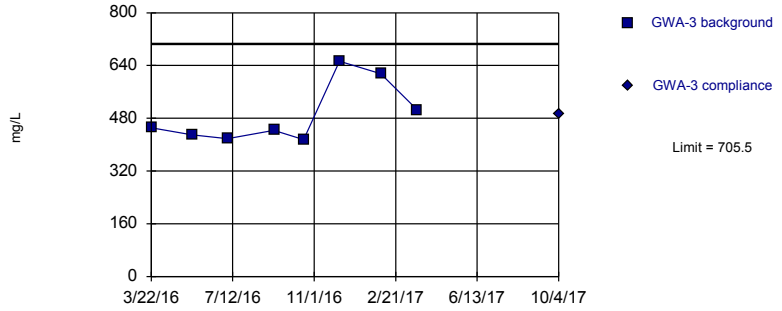
Background Data Summary: Mean=223.4, Std. Dev.=21.47, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9504, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=491.4, Std. Dev.=93.02, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7995, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-23	GWC-23
3/23/2016	6.2867	
5/19/2016	5.42	
7/7/2016	5.7	
9/8/2016	5.7	
10/19/2016	5.8	
12/7/2016	5.9	
2/3/2017	38	
3/27/2017	43	
10/5/2017		8.3

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-1	GWA-1
3/22/2016	78	
5/17/2016	67	
7/5/2016	87	
9/7/2016	125	
10/18/2016	133	
12/6/2016	151	
1/31/2017	135	
3/23/2017	72	
10/4/2017		91

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-2	GWA-2
3/22/2016	233	
5/17/2016	197	
7/5/2016	218	
9/7/2016	240	
10/18/2016	221	
12/7/2016	235	
1/31/2017	253	
3/23/2017	190	
10/4/2017		192

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

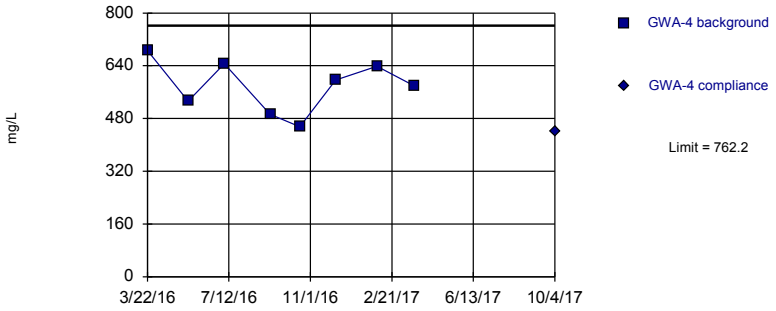
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-3	GWA-3
3/22/2016	451	
5/17/2016	430	
7/5/2016	418	
9/7/2016	443	
10/18/2016	415	
12/6/2016	653	
2/1/2017	615	
3/23/2017	506	
10/4/2017		492

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=578.4, Std. Dev.=79.85, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.965, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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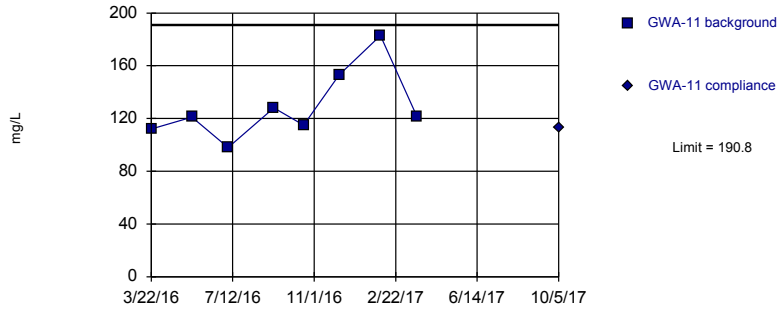
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=128.9, Std. Dev.=26.9, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8775, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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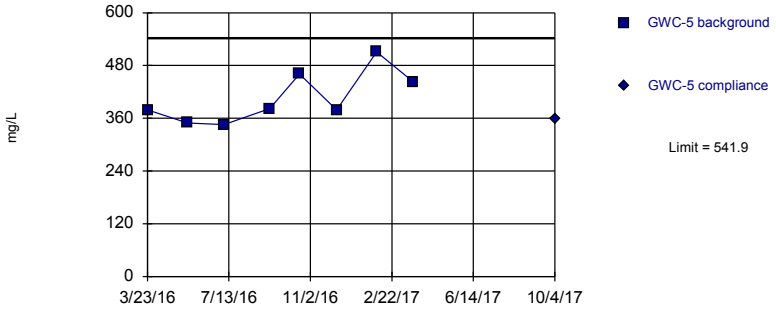
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=406.3, Std. Dev.=58.92, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8846, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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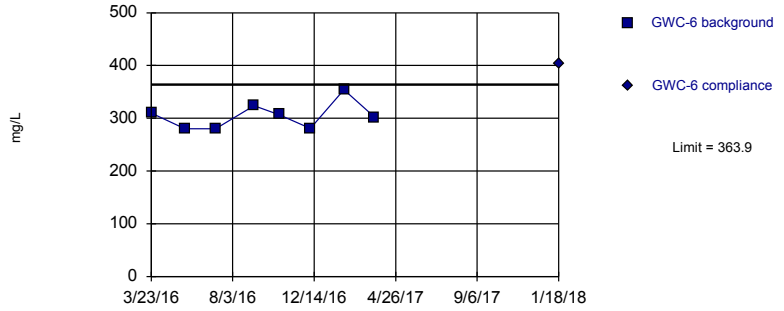
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=304.8, Std. Dev.=25.71, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8867, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-4	GWA-4
3/22/2016	686	
5/17/2016	533	
7/6/2016	646	
9/7/2016	493	
10/18/2016	455	
12/6/2016	597	
2/1/2017	638	
3/24/2017	579	
10/4/2017		440

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-11	GWA-11
3/22/2016	112	
5/17/2016	121	
7/6/2016	98	
9/7/2016	128	
10/18/2016	115	
12/6/2016	153	
2/1/2017	183	
3/24/2017	121	
10/5/2017		113

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-5	GWC-5
3/23/2016	379	
5/17/2016	349	
7/6/2016	346	
9/7/2016	382	
10/18/2016	461	
12/8/2016	379	
2/1/2017	511	
3/23/2017	443	
10/4/2017		359

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

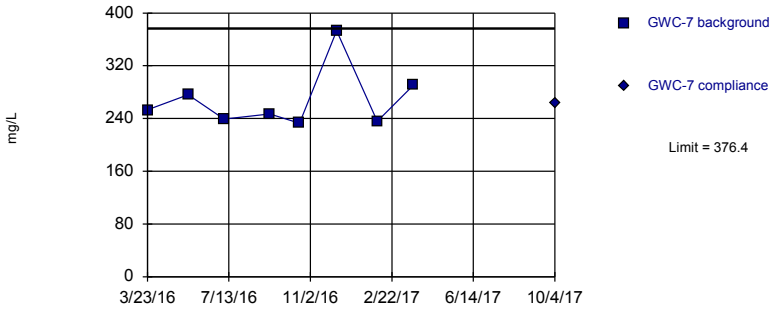
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-6	GWC-6
3/23/2016	310	
5/17/2016	280	
7/6/2016	280	
9/7/2016	324	
10/18/2016	307	
12/8/2016	281	
2/1/2017	354	
3/23/2017	302	
1/18/2018		404 (R)

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=268.5, Std. Dev.=46.86, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7717, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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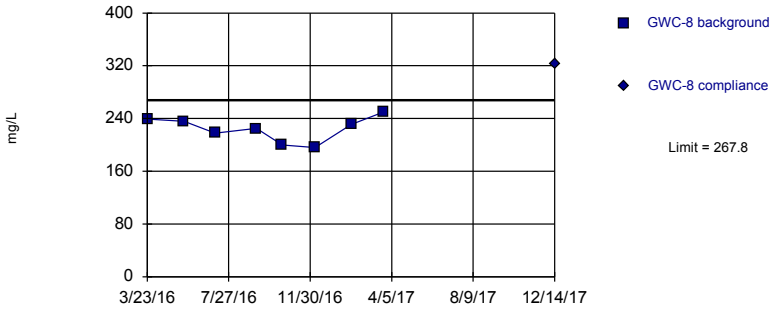
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=224.4, Std. Dev.=18.86, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9445, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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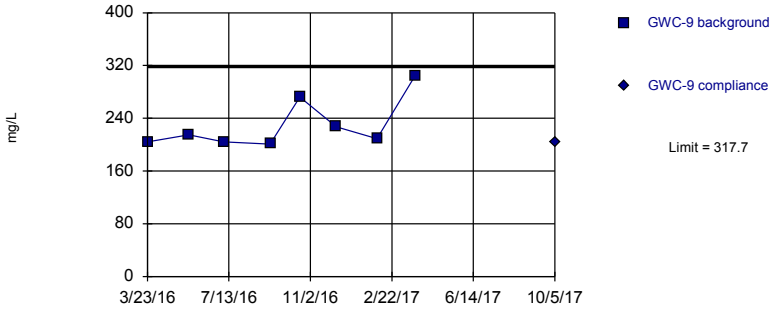
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=229.6, Std. Dev.=38.28, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7689, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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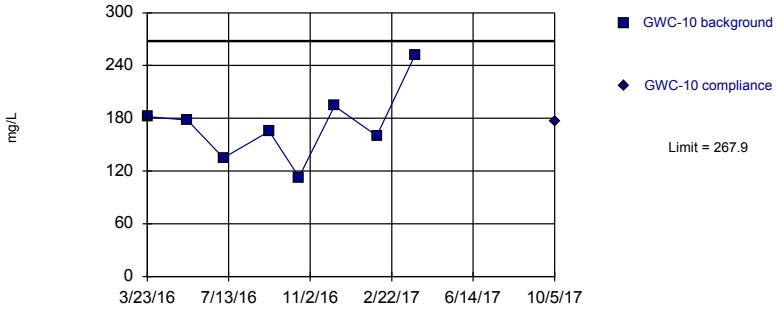
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=172.4, Std. Dev.=41.51, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9555, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-7	GWC-7
3/23/2016	253	
5/18/2016	276	
7/6/2016	239	
9/7/2016	247	
10/18/2016	233	
12/8/2016	373	
2/2/2017	236	
3/24/2017	291	
10/4/2017		264

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-8	GWC-8
3/23/2016	239	
5/19/2016	236	
7/6/2016	218	
9/8/2016	225	
10/18/2016	200	
12/8/2016	196	
2/2/2017	231	
3/24/2017	250	
12/14/2017		322 (R)

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-9	GWC-9
3/23/2016	204	
5/19/2016	215	
7/6/2016	204	
9/8/2016	201	
10/19/2016	272	
12/8/2016	227	
2/2/2017	209	
3/27/2017	305	
10/5/2017		204

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

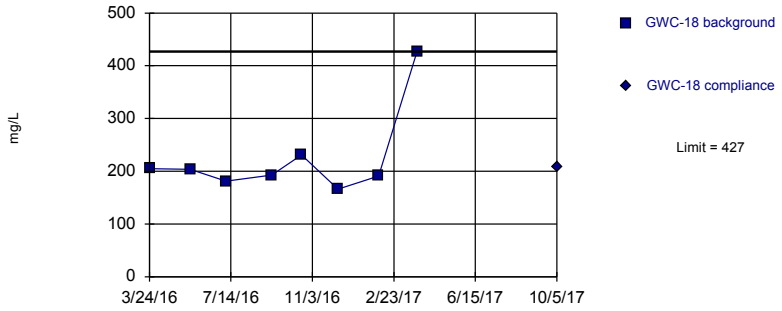
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-10	GWC-10
3/23/2016	182	
5/17/2016	178	
7/6/2016	135	
9/7/2016	165	
10/18/2016	113	
12/6/2016	194	
2/2/2017	160	
3/27/2017	252	
10/5/2017		177

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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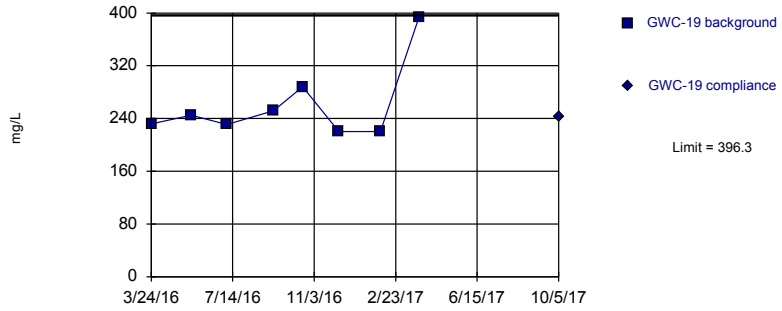
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=16.05, Std. Dev.=1.675, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7504, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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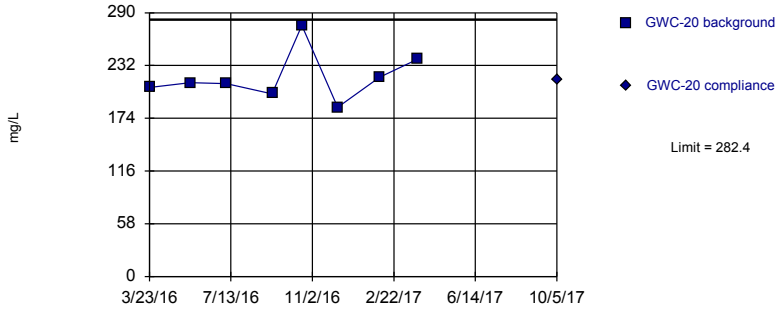
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=219.3, Std. Dev.=27.43, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8899, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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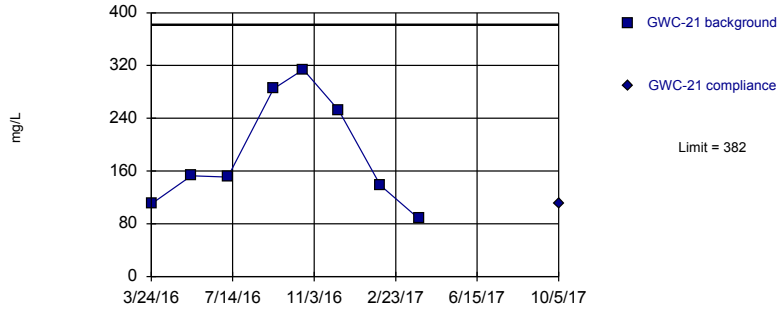
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=186.4, Std. Dev.=84.97, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8904, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-18	GWC-18
3/24/2016	205	
5/19/2016	204	
7/7/2016	181	
9/8/2016	193	
10/19/2016	231	
12/8/2016	166	
2/2/2017	191	
3/27/2017	427	
10/5/2017		207

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-19	GWC-19
3/24/2016	232	
5/18/2016	245	
7/6/2016	231	
9/8/2016	252	
10/18/2016	288	
12/7/2016	220	
2/2/2017	220	
3/27/2017	393	
10/5/2017		242

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-20	GWC-20
3/23/2016	208	
5/18/2016	213	
7/7/2016	212	
9/8/2016	201	
10/19/2016	276	
12/7/2016	186	
2/3/2017	219	
3/27/2017	239	
10/5/2017		216

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

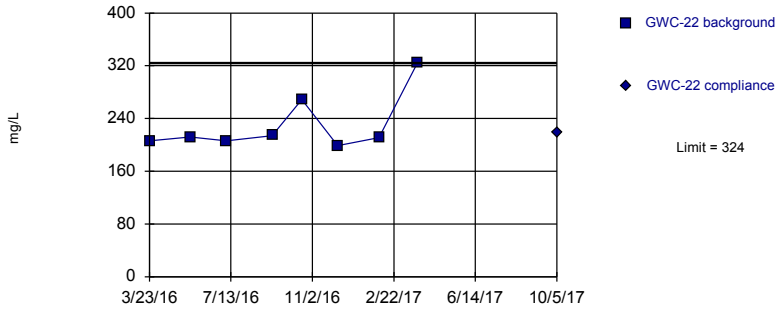
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-21	GWC-21
3/24/2016	110	
5/18/2016	153	
7/7/2016	151	
9/8/2016	285	
10/19/2016	314	
12/7/2016	252	
2/2/2017	138	
3/27/2017	88	
10/5/2017		111

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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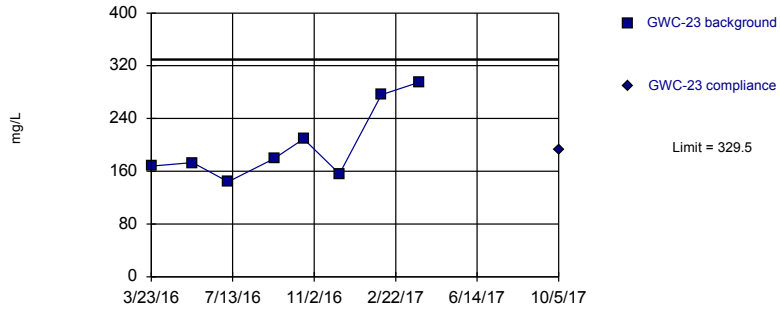
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=200, Std. Dev.=56.25, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8454, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Total Dissolved Solids Analysis Run 1/25/2018 10:19 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-22	GWC-22
3/23/2016	206	
5/18/2016	212	
7/7/2016	206	
9/8/2016	214	
10/19/2016	269	
12/7/2016	199	
2/2/2017	211	
3/27/2017	324	
10/5/2017		219

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/25/2018 10:22 PM View: 2A. Intrawell UPL - Group A

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-23	GWC-23
3/23/2016	168	
5/19/2016	173	
7/7/2016	144	
9/8/2016	179	
10/19/2016	209	
12/7/2016	156	
2/3/2017	276	
3/27/2017	295	
10/5/2017		192

Prediction Limit

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125 Printed 1/25/2018, 10:25 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GWC-9	0.05	n/a	10/5/2017	0.0157	No	8	12.5	n/a	0.005912	NP Intra (normality) ...
Boron (mg/L)	GWC-10	0.04831	n/a	10/5/2017	0.0294	No	8	12.5	No	0.000...	Param Intra 1 of 3
Boron (mg/L)	GWC-20	0.05	n/a	10/5/2017	0.0178	No	8	12.5	n/a	0.005912	NP Intra (normality) ...
Boron (mg/L)	GWC-23	0.151	n/a	10/5/2017	0.0375	No	8	12.5	sqrt(x)	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWA-1	1.439	n/a	10/4/2017	0.55ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWA-2	2.965	n/a	10/4/2017	1.1ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWA-3	4.87	n/a	10/4/2017	1.8ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWA-11	2.155	n/a	10/5/2017	0.65ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-5	4.009	n/a	10/4/2017	1.85ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-6	2.297	n/a	10/4/2017	0.85ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-7	2.302	n/a	10/4/2017	0.85ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-8	2.129	n/a	10/5/2017	1ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-9	1.741	n/a	10/5/2017	0.55ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-10	1.911	n/a	10/5/2017	0.75ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-18	1.774	n/a	10/5/2017	0.7ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-19	2.477	n/a	10/5/2017	0.95ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-21	3.478	n/a	10/5/2017	1.65ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-22	1.956	n/a	10/5/2017	0.8ND	No	8	0	No	0.000...	Param Intra 1 of 3
Chloride (mg/L)	GWC-23	2.062	n/a	10/5/2017	0.7ND	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-6	0.3314	n/a	10/4/2017	0.03	No	8	12.5	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GWC-21	0.2567	n/a	10/5/2017	0.15ND	No	8	0	No	0.000...	Param Intra 1 of 3

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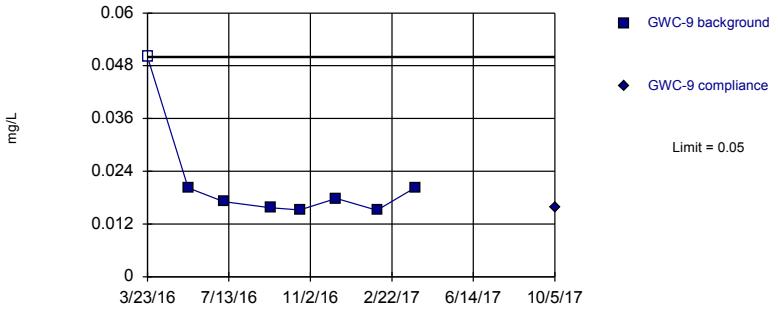
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 12.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Boron Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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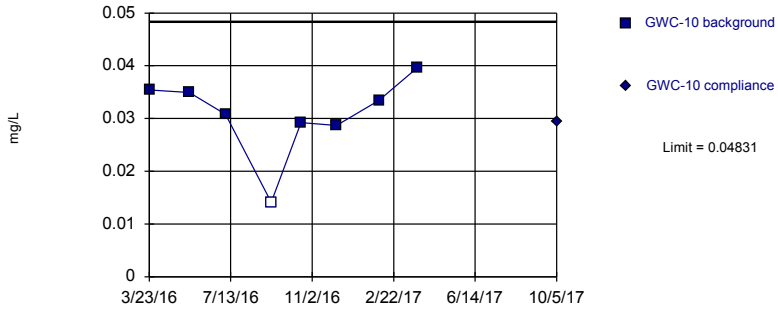
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.03077, Std. Dev.=0.007619, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.857, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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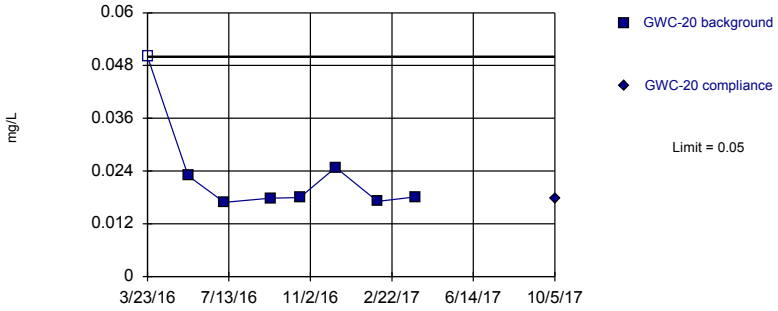
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. 12.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

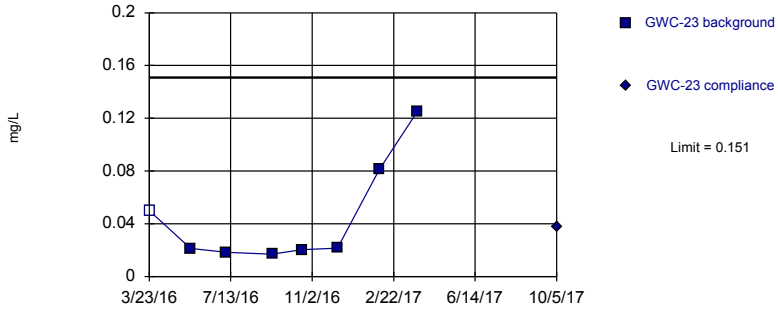
Constituent: Boron Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Sanitas™ v.9.5.32 Sanitas software licensed to ERM. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=0.1953, Std. Dev.=0.08395, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7837, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Boron Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-9	GWC-9
3/23/2016	<0.1	
5/18/2016	0.0202 (J)	
7/6/2016	0.0171 (J)	
9/8/2016	0.0157 (J)	
10/19/2016	0.0152 (J)	
12/8/2016	0.0178 (J)	
2/2/2017	0.0151 (J)	
3/27/2017	0.0203 (J)	
10/5/2017		0.0157 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-10	GWC-10
3/23/2016	0.0354 (J)	
5/17/2016	0.0349 (J)	
7/6/2016	0.0308 (J)	
9/7/2016	<0.0283 (*)	
10/18/2016	0.0292 (J)	
12/6/2016	0.0287 (J)	
2/2/2017	0.0334 (J)	
3/27/2017	0.0396 (J)	
10/5/2017		0.0294 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-20	GWC-20
3/23/2016	<0.1	
5/18/2016	0.0229 (J)	
7/7/2016	0.0169 (J)	
9/8/2016	0.0178 (J)	
10/19/2016	0.018 (J)	
12/7/2016	0.0248 (J)	
2/3/2017	0.0171 (J)	
3/27/2017	0.0181 (J)	
10/5/2017		0.0178 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-23	GWC-23
3/23/2016	<0.1	
5/19/2016	0.0212 (J)	
7/7/2016	0.0183 (J)	
9/8/2016	0.017 (J)	
10/19/2016	0.0203 (J)	
12/7/2016	0.0215 (J)	
2/3/2017	0.0812	
3/27/2017	0.125	
10/5/2017		0.0375 (J)

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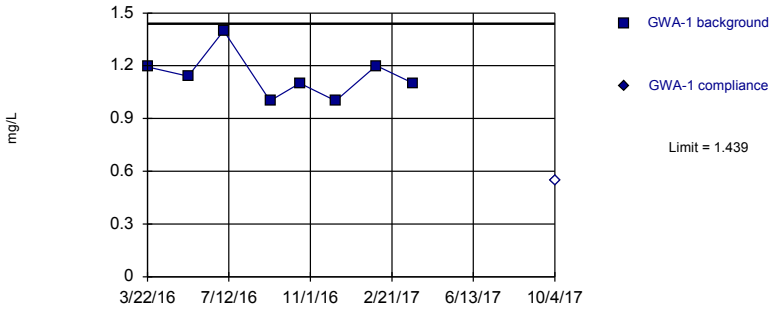
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.142, Std. Dev.=0.129, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.901, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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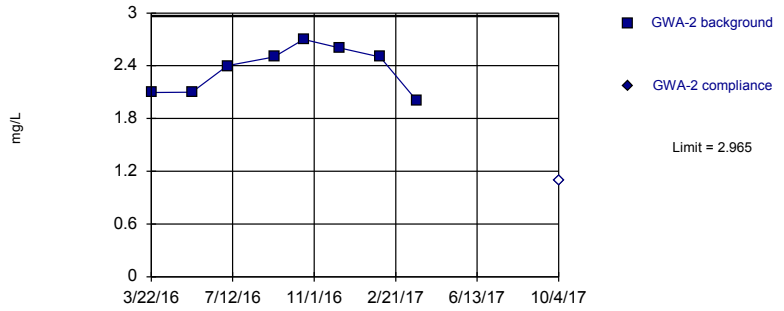
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.362, Std. Dev.=0.2619, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9018, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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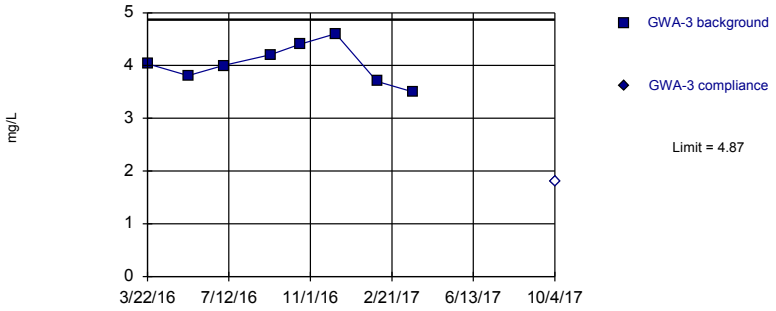
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.031, Std. Dev.=0.3645, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9853, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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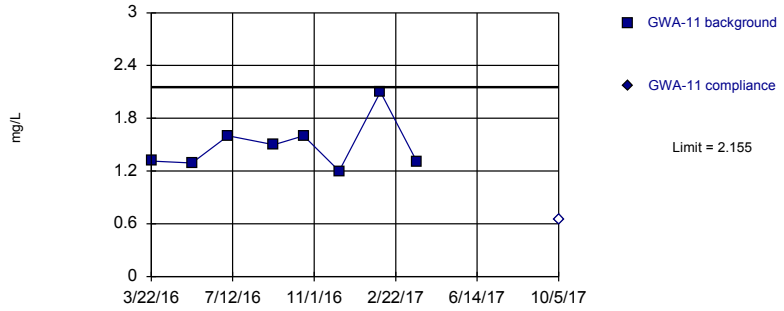
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.488, Std. Dev.=0.2897, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.847, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-1	GWA-1
3/22/2016	1.1933	
5/17/2016	1.14	
7/5/2016	1.4 (B)	
9/7/2016	1 (B)	
10/18/2016	1.1	
12/6/2016	1	
1/31/2017	1.2 (B-01)	
3/23/2017	1.1	
10/4/2017		<1.1 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-2	GWA-2
3/22/2016	2.0975	
5/17/2016	2.1	
7/5/2016	2.4 (B)	
9/7/2016	2.5 (B)	
10/18/2016	2.7	
12/7/2016	2.6	
1/31/2017	2.5 (B-01)	
3/23/2017	2	
10/4/2017		<2.2 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-3	GWA-3
3/22/2016	4.0352	
5/17/2016	3.81	
7/5/2016	4 (B)	
9/7/2016	4.2 (B)	
10/18/2016	4.4	
12/6/2016	4.6	
2/1/2017	3.7	
3/23/2017	3.5	
10/4/2017		<3.6 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWA-11	GWA-11
3/22/2016	1.3137	
5/17/2016	1.29	
7/6/2016	1.6 (B)	
9/7/2016	1.5 (B)	
10/18/2016	1.6	
12/6/2016	1.2	
2/1/2017	2.1	
3/24/2017	1.3	
10/5/2017		<1.3 (*)

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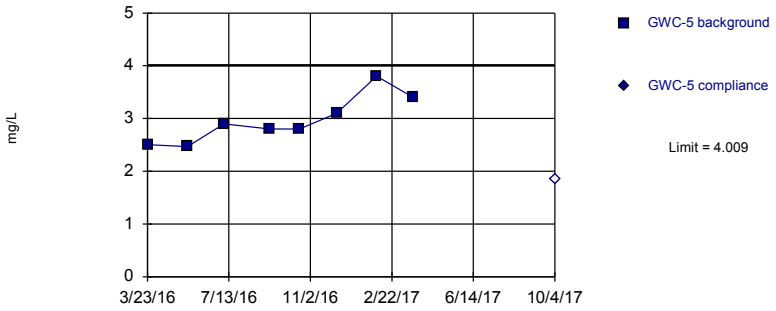
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.972, Std. Dev.=0.4504, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9251, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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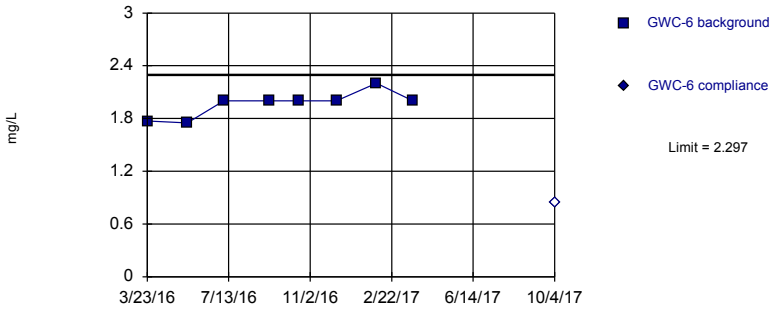
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.965, Std. Dev.=0.144, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8186, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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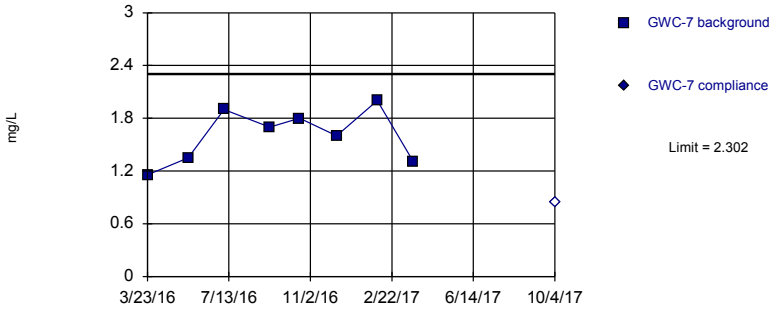
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.601, Std. Dev.=0.3045, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9476, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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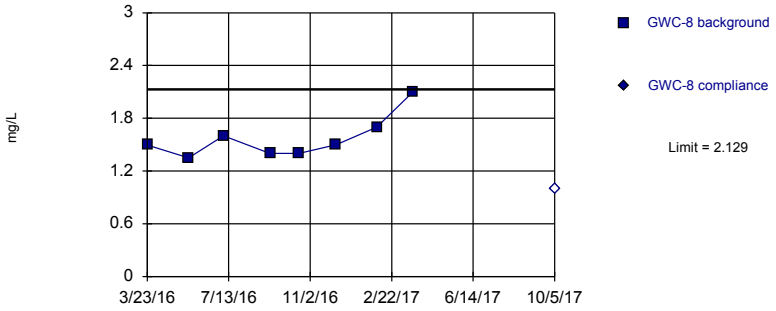
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.568, Std. Dev.=0.2437, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8207, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-5	GWC-5
3/23/2016	2.5045	
5/17/2016	2.47	
7/6/2016	2.9 (B)	
9/7/2016	2.8 (B)	
10/18/2016	2.8	
12/8/2016	3.1	
2/1/2017	3.8	
3/23/2017	3.4	
10/4/2017		<3.7 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-6	GWC-6
3/23/2016	1.7709	
5/17/2016	1.75	
7/6/2016	2 (B)	
9/7/2016	2 (B)	
10/18/2016	2	
12/8/2016	2	
2/1/2017	2.2	
3/23/2017	2	
10/4/2017		<1.7 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-7	GWC-7
3/23/2016	1.1569	
5/18/2016	1.35	
7/6/2016	1.9 (B)	
9/7/2016	1.7 (B)	
10/18/2016	1.8	
12/8/2016	1.6	
2/2/2017	2	
3/24/2017	1.3	
10/4/2017		<1.7 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-8	GWC-8
3/23/2016	1.4936	
5/19/2016	1.35	
7/6/2016	1.6 (B)	
9/8/2016	1.4	
10/18/2016	1.4	
12/8/2016	1.5	
2/2/2017	1.7	
3/24/2017	2.1	
10/5/2017		<2 (*)

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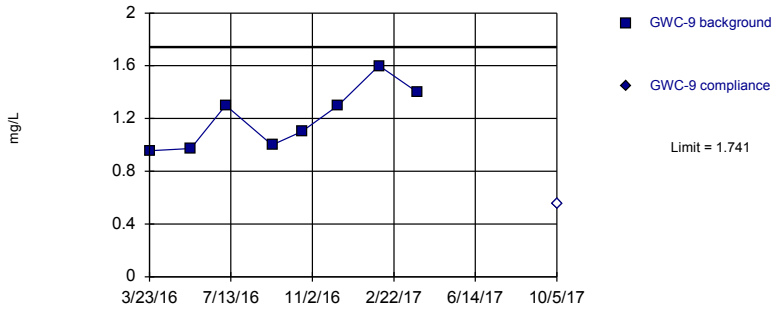
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.204, Std. Dev.=0.2334, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9085, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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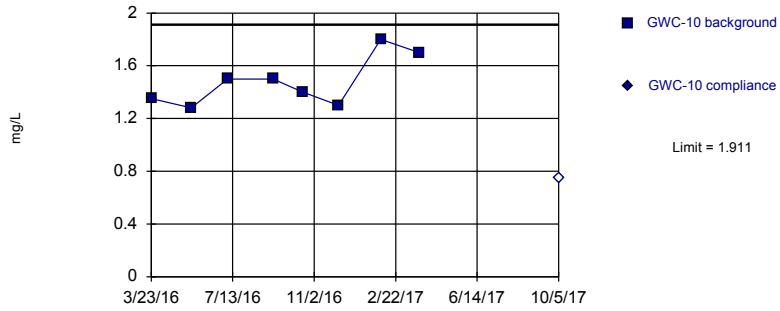
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.479, Std. Dev.=0.1879, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.905, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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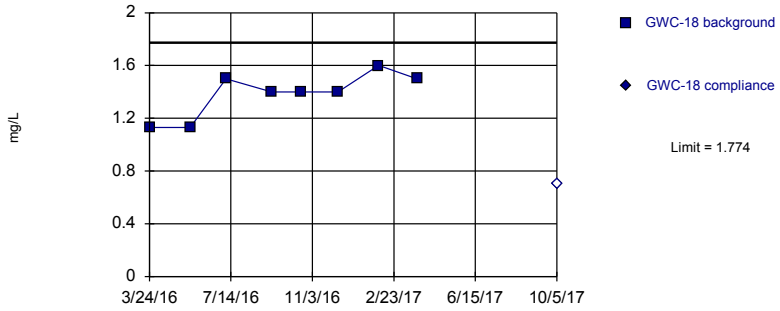
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.383, Std. Dev.=0.1702, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8642, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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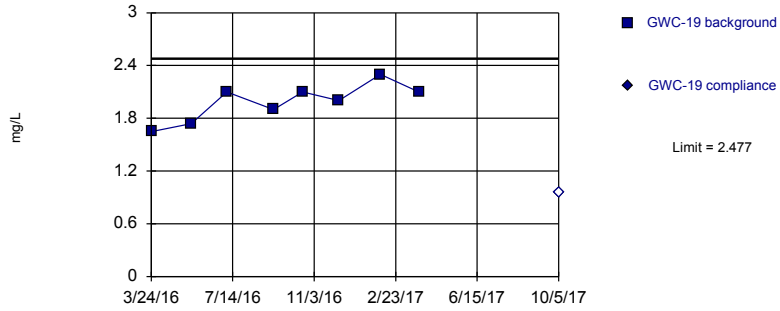
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.986, Std. Dev.=0.2134, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9418, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-9	GWC-9
3/23/2016	0.9561	
5/19/2016	0.972	
7/6/2016	1.3 (B)	
9/8/2016	1	
10/19/2016	1.1	
12/8/2016	1.3	
2/2/2017	1.6	
3/27/2017	1.4	
10/5/2017		<1.1 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-10	GWC-10
3/23/2016	1.3507	
5/17/2016	1.28	
7/6/2016	1.5 (B)	
9/7/2016	1.5 (B)	
10/18/2016	1.4	
12/6/2016	1.3	
2/2/2017	1.8	
3/27/2017	1.7	
10/5/2017		<1.5 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-18	GWC-18
3/24/2016	1.1313	
5/19/2016	1.13	
7/7/2016	1.5 (B)	
9/8/2016	1.4	
10/19/2016	1.4	
12/8/2016	1.4	
2/2/2017	1.6	
3/27/2017	1.5	
10/5/2017		<1.4 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-19	GWC-19
3/24/2016	1.6497	
5/18/2016	1.74	
7/6/2016	2.1 (B)	
9/8/2016	1.9	
10/18/2016	2.1	
12/7/2016	2	
2/2/2017	2.3	
3/27/2017	2.1	
10/5/2017		<1.9 (*)

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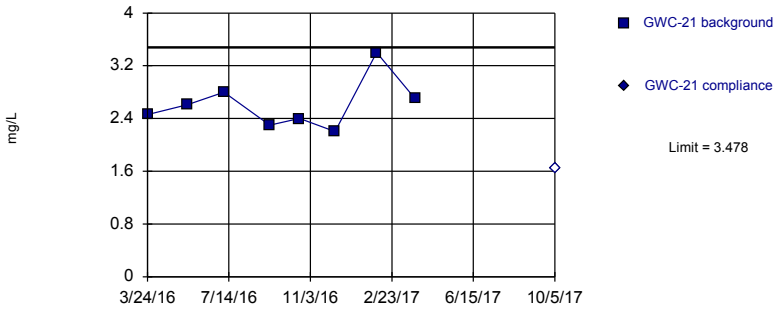
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.609, Std. Dev.=0.3777, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8943, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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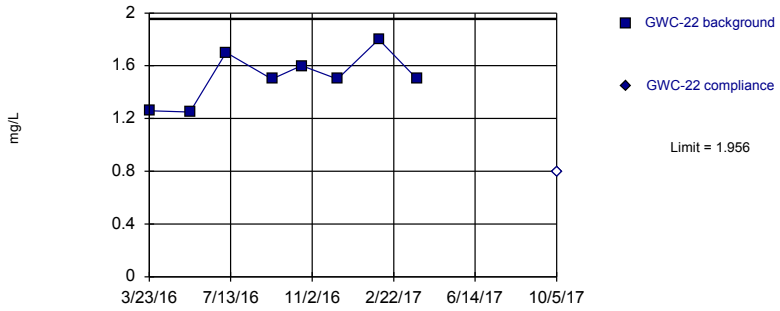
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.514, Std. Dev.=0.1923, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9263, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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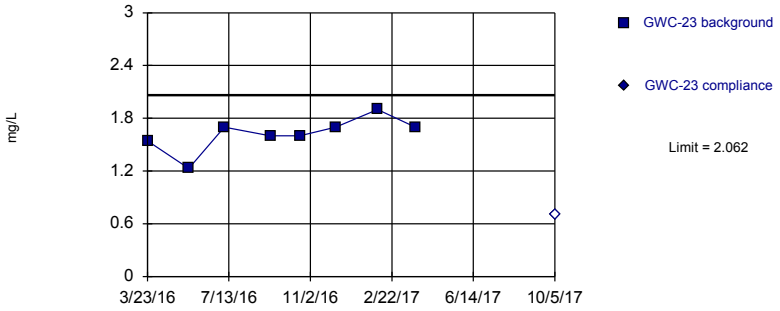
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=1.621, Std. Dev.=0.1915, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8932, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Chloride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

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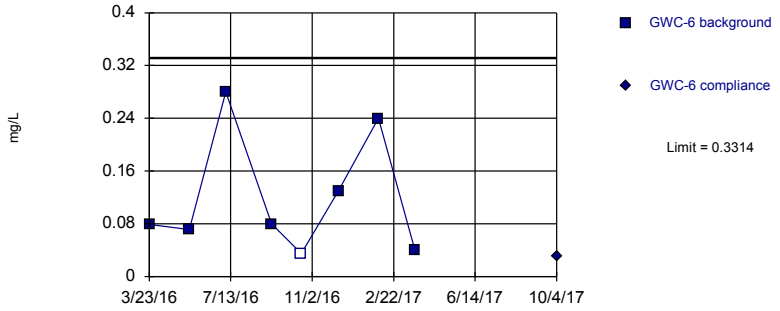
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1194, Std. Dev.=0.0921, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8289, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B
Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-21	GWC-21
3/24/2016	2.461	
5/18/2016	2.61	
7/7/2016	2.8 (B)	
9/8/2016	2.3	
10/19/2016	2.4	
12/7/2016	2.2	
2/2/2017	3.4	
3/27/2017	2.7	
10/5/2017		<3.3 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-22	GWC-22
3/23/2016	1.2595	
5/18/2016	1.25	
7/7/2016	1.7 (B)	
9/8/2016	1.5	
10/19/2016	1.6	
12/7/2016	1.5	
2/2/2017	1.8	
3/27/2017	1.5	
10/5/2017		<1.6 (*)

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-23	GWC-23
3/23/2016	1.5409	
5/19/2016	1.23	
7/7/2016	1.7 (B)	
9/8/2016	1.6	
10/19/2016	1.6	
12/7/2016	1.7	
2/3/2017	1.9	
3/27/2017	1.7	
10/5/2017		<1.4 (*)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

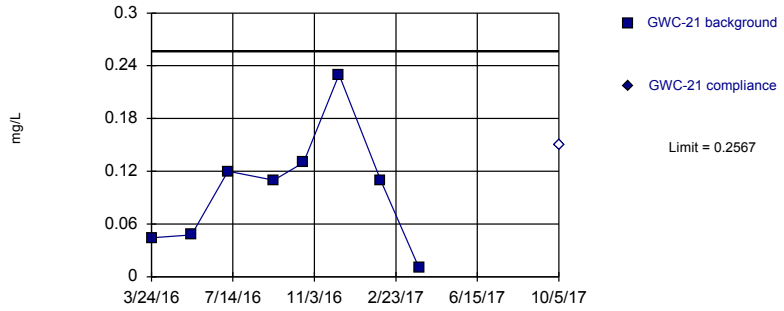
	GWC-6	GWC-6
3/23/2016	0.0791 (J)	
5/17/2016	0.0712 (J)	
7/6/2016	0.28 (J)	
9/7/2016	0.08 (J)	
10/18/2016	<0.07 (*)	
12/8/2016	0.13 (J)	
2/1/2017	0.24 (J)	
3/23/2017	0.04 (J)	
10/4/2017		0.03 (J)

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=0.1003, Std. Dev.=0.06796, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9239, critical = 0.749. Kappa = 2.302 (c=7, w=12, 1 of 3, event alpha = 0.05132). Report alpha = 0.0006269.

Constituent: Fluoride Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/25/2018 10:25 PM View: 2B. Intrawell UPL - Group B

Plant Hammond Client: Southern Company Data: CCR Hammond Huffaker 20180125

	GWC-21	GWC-21
3/24/2016	0.0445 (J)	
5/18/2016	0.0476 (J)	
7/7/2016	0.12 (J)	
9/8/2016	0.11 (J)	
10/19/2016	0.13 (J)	
12/7/2016	0.23 (J)	
2/2/2017	0.11 (J)	
3/27/2017	0.01 (J)	
10/5/2017		<0.3